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THE NOURISHMENT IN ACUTE AFFECTIONS.*

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If we would succeed in the treatment of diseases in general, we must take into account the fundamental principles upon which all organic life must depend, viz., the pabulum upon which the tissues are fed, and the varying circumstances under which the functions are affected by the various elements known as foods.

We shall confine what we have to say at this time, more particularly to affections of an acute nature.

In our daily practice we are constantly met with the question: "What shall we give the patient to eat?" and its solution is sometimes a difficult one.

Naturally, the patient, the friends and the nurse all look to the physician to give explicit directions as to what articles of food are proper in a given case, just how it shall be prepared, and the frequency with which it shall be administered.

The form in which we shall offer nourishment to our patients acutely ill is of the first importance, after deciding as to the kind required in the particular case, and its suitable preparation is next in consequence.

It is absolutely necessary that the physician should not only be able to select the kind required, the form in which it should be exhibited, but he should also know how to prepare it, and be able to give intelligent directions to a suitable person to perform this service in a manner acceptable to the patient, who may be whimsical and difficult to please.

It does not matter particularly how we may classify our articles of food, so long as we bear in mind that *water* is of prime importance in the restoration or maintenance of organic function, and that salts, fats, sugars, starches and albuminoids must come into the account and receive that careful consideration necessary to the individualization imperatively demanded for satisfactory results.

It is an easy matter to generalize, and even to form classes, but it is oftentimes a most difficult matter to individualize cases for the purpose of treatment.

If we stop to consider the physiological fact that the human body is two-thirds water, and that this ratio must be maintained for healthy functional activity, it stands to reason that any variation from this standard must be at the expense of the solids of the body. Many cases of disordered digestion are due entirely to lack of sufficient water. Physiological experiment has demonstrated that normal digestion in a healthy organism requires a pint of water in some form with each meal, and that any variation from this rule will be at the expense of the digestive powers. The majority of people are better off for water between meals when in health, and while there is no danger from taking water in large excess, at the same time it is hardly worth while to augment the bulk of the body to such an extent that it becomes burdensome. Of course we should not overlook the importance of intense thirst as a symptom of diabetes, and treat it accordingly.

In acute affections it is better to flush the intestinal canal with water, hot or cold, according to indications, and I know of no precautions in this respect which should be exercised. Water not only helps to clean the stomach of its contents, and aid in the digestion of food, but when taken up by the blood vessels, aids in normal nutrition and removes effete matter from the circulation by increasing the mobility of the fluids, thus relieving congestion of important internal organs.

The refreshing draught of fresh cool water should not be withheld from our parched fever patients under any circumstances, and they should be even urged to increase the quantity. The physician should see that it is offered, whether it is asked for or not, in all cases.

In cases of acute catarrh of the stomach, there is no agent which gives so prompt and durable relief as water, sipped as hot as it can be borne, and this will apply in a great number of affections, especially where the stomach is irritated in this way. Hot water quenches thirst better than cold, but we should bear in mind that it is an excitant.

It will not do to attempt to substitute alcoholic stimulants, tea, coffee, or even milk, for pure water, as they will not serve in place of this important agent.

Our female patients may be induced to take more water if we can convince them that rotundity of the body depends upon a suitable quantity of water, and that the blood vessels, when kept filled with a sufficiency of this fluid, will retard the wrinkling of the skin, which is the bane of every woman who cares for her personal appearance. We should, I think, impress upon our patients the fact that healthy function, not only as regards

* Read before the Clinical Club.

digestion, but in respect to all other functional activity, absolutely depends upon the water ingested.

There is no drug which will act more effectually—and certainly the action is more kindly—than water, in those acute affections where the liver is torpid, bowels inactive, tongue heavily coated, etc.; but the quantity ingested must be large, sometimes enormous, and in some cases as hot as it can be borne. Even when the liver is overactive, there is no remedy which so favorably clears out the bile and hastens convalescence as water, and there can be no unfavorable reaction, as there may be when drugs are used for this purpose.

I am confident that the kidneys, the great sluice-way of the body, may be saved from serious consequences, in many cases, after acute illness, especially in scarlatina and other exanthematous affections, by the free and methodical use of water internally.

We are often called upon to treat cases of nephritis in its various forms, in which the primary lesion was in the liver, which would have been prevented by the timely and proper exhibition of this simple remedy, and I know of no means which act so favorably, even in the advanced stages of the disease, washing out the life-destroying urea, and preventing or mitigating the terrible convulsions, which so often result in consequences so painful to witness.

Let us therefore bear in mind that the body needs cleansing internally as well as externally, and that there is no agent equal to *pure water* for this purpose.

The various mineral waters, of which we have a great number, should be studied for their specific individualities, and prescribed in accordance with this principle.

Of the artificial mineral waters, I know of none which are so satisfactory, reliable and trustworthy as those made by the well-known house of Carl H. Schultz. The water used in their manufacture is distilled, the formulæ are exact counterparts of the natural waters, they are fully charged with carbonic acid gas, and are in every respect just what they claim to be. I am justified, I think, in commending these waters to you, since I have used them to a large extent for more than twenty years.

The individualization of articles of food as respects the disease we are treating is important, and we should also carefully consider personal idiosyncrasy in our selection, as the great variety of foods at the present day, of more or less nutritive value, enable us to do. We find, however, that iron-bound rules respecting these matters will not answer practically, but that an enlightened intelligence must be used in all cases.

We ought always to keep in mind, in prescribing the diet for our patients, the modern physiology of digestion, as it appears in the light of recent investigation.

I often find that stomach indigestion is caused by insufficient mastication, the great majority imperfectly performing this act, so that the stomach is taxed beyond its power in the process of disintegration of those articles of food which should be hydrated at this point, thus throwing, perhaps, the work upon other organs which would be done here if the act of mastication were properly performed.

We ought also to bear in mind in prescribing pepsin, that an acid medium is required for its activity, that it should never be combined with an alkali, and that hydrochloric acid should sometimes be added.

If we stop to recall the fact that starches should be digested by the salivary secretion, we will realize not only the importance of thorough cooking of articles containing starch, but also the necessity of allowing sufficient time in mastication for the mass to become properly intermixed with the saliva necessary to digestion.

Acute intestinal indigestion is often due to faulty mastication of foods containing starch, or which have not been sufficiently cooked to admit of their easy digestion. While we may be sufficiently conscious of the fact that all food must assume the soluble state before it can be taken up for assimilation, I am confident that we shall find that the great majority of our patients do not accomplish this result.

The habit of rapid eating, hence faulty mastication, is a more important element in the cause of many diseases than is generally supposed. I have found that I get on much better in the treatment of patients since I realized the importance of mastication, and I try to convince them of this fact by explaining its physiology in a way which they can understand, as I find they are more likely to overcome the habit—not an easy thing to do—if they understand the reasons which underlie the subject.

Patients acutely ill will tolerate fats only when presented in the most delicate forms, such as cream-vichy, the yolk of egg with vichy, or vichy and milk. Sweet, fresh butter is an excellent form of fat when it is tolerated by the palate.

Cane and beet sugars must be inverted by the addition of a molecule of hydrogen before they can become as soluble as grape sugar and maltose, hence, they are more difficult of digestion than the lower forms of sugar, and should be used sparingly, if at all, as they are subject to acetous fermentation, which is irritating.

Grape sugar, milk sugar, and maltose are the ideal foods in this line, as they are easily soluble and readily absorbed.

Milk sugar, which is subject to lactic acid fermentation, is greatly to be preferred in the diet of the acutely ill, to cane sugar, which gives an acetous fermentation, for reasons which are obvious. For this reason I have suggested that milk sugar should be used in the preparation of kumyss, a point which some manufacturers have promptly utilized with great satisfaction.

Grape sugar, which is so important and useful

in the treatment of the acutely ill, can now be obtained in a concentrated, unfermented form, without having been boiled, and absolutely free from any extraneous preservative whatever, from the California Grape Food Co., of Los Gatos, Cal., or from druggists generally. This grape juice is a great boon in the sick room, and is furnished in two varieties: red Zinfandel, not very sweet, and white Muscatel, having the well-known properties of this delicious grape.

It may be combined with various agents for use, but it is especially delicious with clysmic, vichy, or other mineral waters.

Grape juice, a compound of water, sugar (chemically dextrose), acids, salts, etc., exhibits all the proximate principles required for nourishment of the human body, resembling milk.

Grape sugar, the final physiological form of all starch and sugar, thus represents the simplest nutrient of its class for assimilative purposes, and we should take this fact into account when prescribing starchy foods, potentially sugar, and which must be converted to grape sugar before they are taken up, by taxing the digestive function of Brunner's and Lieberkuhn glands for twelve to twenty-four hours or more.

Persons acutely ill oftentimes secrete very little saliva, so that starches are acted upon but slightly, if at all, and then grape sugar or glucose, in some form, is imperatively demanded. The grape, as an article of food in these cases, is excellent; but in the grape juice, as prepared, we have always at hand, in a most convenient form, all the qualities to be obtained from the grape itself, and at a reasonable price, which, at certain seasons of the year, is an item of importance to some.

I am in the habit of using syrup of glucose in place of cane sugar in many instances. I can see no harm in the artificial conversion of starch to glucose, by means of sulphuric acid and lime, so long as we are given a pure article. In commerce it may be obtained in its pure state as a syrup, or with dextrine, as desired, when it will appear in a solid state, and is furnished in cakes. The syrup is not as intensely sweet as cane sugar, and it requires more, of course, to be used for sweetening purposes, to satisfy the palate, but it is easier of digestion, accomplishes better results, and is less liable to produce indigestion. I add a teaspoonful or more, as desired, to a glass of milk, or any other vehicle, and, as a rule, patients are satisfied with it, and never any unpleasant results follow.

In acute affections the various fruits are refreshing, and give variety, according to individual idiosyncrasy, and are useful, not only for the water they contribute, but for the sugar, citrates, malates and tartrates of potassium which they contain in varying proportions, all useful under certain circumstances and conditions. Grapes certainly stand first in food value, notwithstanding the fact that the banana* is the more nutritious, but the latter is much more difficult of digestion, and should be allowed with caution.

Figs and dates contain sixty per cent. sugar and six per cent. albuminoids, and are valuable as foods when indicated.

In the class of starchy foods we have a great variety to choose from, depending upon what we wish to accomplish, and upon the palate and digestive power of our patient. We have numerous prepared foods, of which Mellin's is a good example, for use where the digestive powers are impaired. Arrowroot makes a bland mucilaginous food, which, when combined with milk, answers a purpose, when the more pasty starches would not be tolerated.

Steamed rice with plenty of milk makes an excellent food combination, and a baked potato which is mealy, with plenty of salt to offset the potash which the potato contains, are both good forms of starch. Gruels made with the various cereals and combined with milk, or with diluted cream, as the case may require, are excellent foods for the acutely ill. Of course, it is necessary to individualize our cases for special purposes, but the most nourishing gruel for general use is made from the entire wheat.

Johnson's Educator Crackers, made with the entire wheat, either whole or powdered, according to circumstances, and eaten with milk or cream, make not only a nutritious dish, but are most agreeable to the palate of some.

Where more fat is desired, as the patient prefers, corn or oaten meal may be used for gruel, and the nutritive proportion can be augmented at pleasure by the addition of milk.

In the treatment of acute diseases we should not despair, but always bear in mind that death is failure of nutrition, and that convalescence is more rapid where wasting is the least. Patients often drift into a critical condition simply from lack of proper feeding; foods are given which are disliked or not tolerated, and we, as physicians, should find out the reasons for all these things, so that we may not have to look back upon a life lost through starvation!

The digestive powers are always impaired when one is ill, the ferments of the stomach may be powerless for digestion, and to pour in foods under these circumstances would be useless in the extreme.

The patient suffering from the shock of traumatism may not have that thirst which belongs to the pyrexial state, so that drinks are not desired and solid foods not tolerated.

Under these circumstances, as a rule, a cup of beef juice or of peptones, repeated as required, will not only be tolerated, but will restore the lost equilibrium more hastily than can be done in any other way. It is much better to adopt this method than to wait for nature to do the work, as she is slow and extravagant, and often needs help in these reactionary methods necessary to the resumption of the ordinary diet.

In the treatment of our fever patients, no matter

*Nitrogenous matter, 4.820; sugar, etc., 19.657; fat, 0.632; cellulose, 0.2200; saline, 0.791; water, 73.900.
N., $\frac{1}{10}$; sugar, $\frac{1}{2}$; water, $\frac{3}{4}$.

what the lesion, with the dry fauces, thirst and high temperature, the use of water becomes imperative, and if we can combine it with some nutritive constituents, the patient will be the gainer. We should bear in mind that milk is a food, and will not take the place of water in quenching thirst. It is well to dilute it with effervescing mineral waters, with or without the addition of grape juice. The starving of patients to keep down the fever is a thing of the past and should be utterly condemned.

A most refreshing and withal nutritious draught may be made with grape juice and effervescing mineral water, with the addition, according to indications, of either toast water, white of egg, yolk of egg, the entire egg, or of any of the extracts of beef, or of peptones, depending upon what we wish to accomplish.

I always include the grape juice as a base, when I can, for three reasons, viz.: 1. It is refreshing. 2. It answers the purpose of sweetening so much better than cane sugar; and 3. It is the normal nourishment of the body and is generally tolerated.

In some cases, other fruit juices, such as apple, tamarind, pine apple, fresh currants, orange or lemon, all of them of little nutritive value, may be used to bridge over or be added to the grape juice to suit the palate. Malt extracts are used by many for the maltose or grape sugar, soluble dextrine and some soluble albuminoids they contain, and their sweet taste may also be largely overcome by the addition of effervescing mineral water.

There is a difference of opinion in regard to the use of milk in enteric fever, not only on account of its deficiency of fuel food, but because the first step in its digestion is curdling, and a firm curd irritates. There are several ways in which the large curd may be avoided, and one of the best with unfermented milk is the addition of effervescing mineral water. Some use lime water, and others use baked flour. When the palate is not offended by an acid, kumyss may be used to great advantage, as here we find the curds small and that they will not become large in the process of digestion.

As I have said before, cane sugar is subject to acetous fermentation, and for that reason kumyss should be made with milk sugar as a ferment, as from this we obtain a lactic acid fermentation, which in many cases is greatly to be preferred.

The consensus of opinion is in favor of the free use of drinking water systematically in typhoid, either hot or cold, according to indications. As a rule, I prefer the carbonated, unless the patient objects. Many object to milk unless predigested, and all, I think, agree upon the use of kumyss, provided it is not disliked by the patient. Alcoholic stimulants are not indicated in all cases of typhoid, hence we should beware of prepared foods which contain whiskey. Glycerine with hydrogen dioxide is an excellent remedy, for many reasons which will be obvious to any one who stops to reason out the *modus operandi*.

In our cases of indigestion, acute or chronic, we have found papoid one of the best digestive ferments, and especially as it acts equally well in an acid or an alkaline medium. Papoid dissolves the abnormal mucous secretion, prevents fermentation, stimulates the gastric mucous membrane to normal secretion, beside being one of our most powerful solvents of all articles taken as food and certainly holds a large place in our armamentarium.

Milk sugar is claimed by some to admit of no direct alcoholic fermentation, but by a lengthy action of yeast, this may be accomplished.

When kumyss proves to be too heavy a food, and an acid is required, buttermilk which has been allowed to stand for a time in a warm place, and then cooled to the taste, will answer the purpose.

Buttermilk is as light a food as we can well provide, as it contains no fat, and but a small quantity of proteids, in the form of well-broken curds. The entire milk, or cream, or skimmed milk, should be selected according to circumstances, with or without effervescing mineral water.

In order that we may know just what is being given as food, the nurse's record should be carefully kept, so that it will always tell exactly what is being done; then, with a full knowledge of food values, and with the art to adapt food to suit conditions, we can have increased hope for recovery in all our cases.

We often find patients who assert that they cannot tolerate milk of any kind in any quantity, as a diet, and occasionally we have to admit that these claims are well founded. I think, however, that the majority can overcome this idiosyncrasy by judicious and methodical effort. Patients who dislike milk, or are disinclined to take it, should be carefully dealt with, and as a rule the prejudice (for many times that is all it amounts to), or the dislike, can be neutralized. The use of milk in these cases should be commenced gradually, and in small quantities, increasing slowly and methodically each day until the maximum is reached.

I have found the addition of grape-juice, glucose or maltine to milk, excellent aids with those who like sweets, in establishing the milk diet.

Milk will sometimes form solid curds in the stomach when used in its natural state, and may require the partial conversion of its casein to albuminoids, which will not coagulate.

This may be accomplished by a process of shaking in a closed vessel for a short time, by the addition of carbonated water, or by the use of peptonizing powders, which are furnished by the well-known house of Fairchild Bros. & Foster.

The process is well known to you all, but should the details have escaped the memory, directions will be found with the powders as fur-

nished, and the degree of digestion may be limited by heat and cold to suit the particular case. Albumoses thus produced, non-coagulable by heat or by dilute acids, answer an excellent purpose in many cases, but we should remember that when digestion is carried too far, a peptone is produced, with its bitter taste.

The subject of feeding with sterilized milk has not fulfilled in practice the expectations of its sanguine advocates. Sterilized milk is said to be less easily digested than untreated milk, and that continued use is liable to be followed by scurvy, and that it is not prophylactic of septic diarrhœa. The reasons are stated to be that the milk is acid, and contains various products of decomposition which are poisonous and irritating to the intestinal mucous membrane.

It is positively stated upon good authority that boiled milk curdles within the stomach in the same way as if it were unboiled.

Sterilized milk deteriorates with time, and should not be used if more than a week old, kept in a cool place.

The albumen of egg forms an excellent food in various combinations in many acute affections. I have been in the habit of using it mixed with some mucilagenous medium, in cases of acute enteritis, with excellent results. Patients are able to take the whites of anywhere up to a dozen and a half, in twenty-four hours. All sorts of combinations may be made with it, depending upon conditions and circumstances. I often use it with grape juice and some effervescing water, to the great satisfaction of patients. It may be added to the cold beef extracts to great advantage, and in this way we obtain a most nutritious, as well as stimulating food, which is agreeable to many palates.

Hauser (*Berl. Klin. Woch.*, Aug. 14, 1893,) proposes for infants a food consisting of cows' milk corrected by addition of cream, milk sugar and egg albumen, heated above 130°, with the result of checking vomiting and diarrhœa, and we should certainly keep the suggestion of adding egg albumen in mind, as our resources are sometimes taxed to the utmost to find a food which will agree with some infants.

I have never pushed the egg to the extent of being able to detect it in the urine, a result which sometimes obtains. The egg albumen is much easier digested when mixed with some carbonated water. We should study differentially the use of the entire egg, the white and the yolk individually, and a wider range of application of this valuable food stuff will commend itself to us.

Nitrogenous food in some form or combination, is absolutely necessary to the continuance of animal life, beyond a short limit. The proteids, defined by Kirkes to consist of albumen, casein, gluten, and their allies, and gelatin, and which contain carbon, hydrogen, oxygen, and nitrogen, and some of them sulphur and phosphorus, form, according to Foster, the principal solids of the muscular, nervous and glandular tissues, of the serum of blood, of serous fluids, and of lymph, and are frequently spoken of as albuminoids.

Proteids are readily converted at the temperature of the body into peptones by the action of the gastric juice in an acid, or of pancreatic juice in an alkaline medium.

Physiologically speaking, the whole animal body is modified protoplasm, the proteids forming the chief mass, fats and carbohydrates however, never being wholly absent. It is a self-evident fact, therefore, that our efforts in restoring health must be directed in accordance with sound physiological principles, and the pabulum necessary to restore a lost equilibrium must combine the elements necessary to nutrition in a normal manner. This, however, cannot always be done in the sick, by the exhibition of foods in what is known as a mixed diet. We are compelled sometimes to limit our food supply to any one of the class of elements which go to make up an ideal diet. We have heard much of late of albumose or albumen peptone, as a most desirable article of nutrition in certain conditions. Albumose is a term applied to partially digested albumen, just before the full change to peptone occurs, and it is considered a veritable tissue builder. Albumoses are odorless, tasteless, and are consequently devoid of some of the objectionable features of the peptones. The most perfect preparation of the albumoses yet produced is furnished us from Germany, under the name somatose.

Somatose is a yellowish, fine, granular powder, readily soluble, perfectly odorless and practically tasteless, containing the nutritive qualities of meat, minus the glutinous material, fat, creatin, xanthin, etc. The usual dose of somatose is a teaspoonful or a dessert spoonful dissolved in a cup of milk, soup, grape juice, with or without the addition of effervescing water. It has been found that this agent diminishes nitrogenous waste, replaces the albumen of the organism, and one part is equal to six parts of beef devoid of fat.

It is claimed to be indicated in all acute diseases where a food rich in albumen and readily assimilated is required, and I have found it of especial service in cases where the peptones were declined on account of their odor and taste.

We may imitate, artificially, the action of the stomach in converting meat albuminoids into soluble substances, for use in such patients as are unable to complete the act themselves, and thus add to our armamentarium for their treatment. I have used the beef peptones made by Rudisch for years, in enormous quantities, and I am confident I have saved many a life with them.

There are cases where the increase of urea is to be avoided, in which we should be cautious in the administration of beef peptones, the same as we would in allowing the meat to be taken in the undigested state. We should have positive indications for and against the use of meat, as we would any other agent. The healthy human stomach has no trouble in digesting beef that has

been properly masticated, and when meat is indicated in the acutely ill, there can be no objection to a peptone made from the entire meat by means of artificial heat carried to a high temperature, which so entirely changes the fibrin as to make it correspond in general composition with other proteids, and, according to Schonbein, it becomes a bearer of ozone.

Beef peptones of this class contain some sixty per cent. of nutritive value, and I cannot speak too highly of their employment in a great variety of acute affections when this form of nitrogenous food may be called for. I will not take the space to enumerate the great variety of affections in which they are useful, because it is well known clinically to most of us that beef peptones fill a large place in the nourishment of our patients suffering acute affections.

A characteristic feature of peptones is their extreme diffusibility, a property which they alone, of all the proteids possess, since all other forms of proteids pass through membranes with the greatest difficulty, if at all. (Foster.) In order that the peptone may not escape by the kidneys as easily as it gets into the portal vein, it is dehydrated and once more becomes a proteid.

The further study of the elaboration of the albuminoids, while of the greatest practical interest, would carry us too far for the limits of the present paper, notwithstanding the fact that many points have an important bearing upon the dietary and other treatment of acute cases.

It must suffice for us to say in this connection that the liver and kidneys require plenty of water, to successfully carry off the excess of soluble urea which is the result of taking albuminoids in excess of body wants.

The relative value of the various preparations should be kept constantly in mind when such articles are being considered as foods. While ordinary home-made beef tea, and all the extracts are next to nothing as nutrients, they certainly have a place as stimulants, and as flavorings for other more nourishing foods, not so pleasant to the palate.

There are in the market preparations of blood and whiskey, under various trade marks, which have a large sale, I presume, and which are highly praised by some, who, I am afraid, do not always take into account their composition, and while these have a place in our armamentarium, we should not lose sight of the fact that they contain an alcoholic stimulant and are very offensive to the special senses of smell and taste, and their food value is not very great.

The juice of meat which has been heated sufficiently to swell and dissolve the envelope of the muscular tissue, can be easily expressed by an ordinary lemon squeezer, is agreeable to the taste, possesses a food value of about seven per cent., and answers an excellent purpose to help bridge over, or it may be used as a vehicle for peptones, (when these are offensive to the taste) or for uncooked eggs, when it is desired to increase the quantity of food, and beef juice is agreeable to the palate.

John Wyeth & Brothers make a delicious beef juice, agreeable to the most fastidious, which can be found at any druggist's, and for this reason is most readily obtained, having a food value of three per cent., which is a great convenience.

When heated in the test-tube Wyeth's beef-juice becomes solid, thus showing the percentage of soluble coagulable albumen. It also contains the hæmoglobin of the meat unaltered.

Of course these meat juices should not be heated above 110° F., if we care to retain the "beef juice" properties, although when coagulated it will make an excellent beef tea. This beef juice answers the purpose of a vehicle for any of the more nutritious food stuffs, and it may be diluted with any of the carbonated waters. As a stimulant, Wyeth's has no superior, embodying in a concentrated form all the albuminoids of beef. It is perfectly stable in every climate, contains no alcohol or other preservative, excepting common salt.

I am in the habit of prescribing this stimulant in preference to alcohol under many circumstances, thus saving the depressing reaction.

It will be found of service in acute gastritis, when no other agent will be tolerated by the stomach. It can readily be demonstrated by heating a one-third solution in a test tube that albuminoids are present as stated.

Combined with grape juice we can easily administer enemata in typhoid and other grave conditions, when the loathing for good food would make the case almost hopeless otherwise, and thus supporting our patients over a trying moment, we hope for much more than could be reasonably expected under other circumstances, and death by exhaustion from neglected nutrition will be avoided.

A simple and inexpensive extract of beef which can be made at home has been recently suggested by Dr. Jacob Price, of Westchester, Pa.

℞. Hydrochloric acid officinal.....f ʒ i
Essence of pepsin (Fairchild's).....f ʒ ii.

Of this mixture three teaspoonfuls are to be added to one pound of finely minced lean beef, and placed in a quart jar in a cool place which is to be nearly filled with *cold* water, tightly covered and well shaken every half hour for two hours, when it will be ready for use. It may be salted and flavored at pleasure. When the question of expense is to be considered, this will be found to answer the purpose excellently.

The details must be carefully carried out in preparation.

The last candidate for our service in the way of a predigested food, from our friends, the Fairchild Brothers, has been named "Panopepton," and consists of bread and beef, with sherry wine as a preservative. We are assured by this reliable house that only prime beef and the best wheat flour are used, and that both are thoroughly cooked, properly digested, concentrated in vacuo,

and contain all the elements requisite for the nutrition of the body.

Where a stimulating and nutritious reconstructive is required at the same time, Panopepton will be found much more useful and agreeable than the blood and whiskey abominations.

When one has been chilled, there is no agent which so promptly and effectually warms up the body as a cup of hot sarco-peptone, and it is far better than any alcoholic stimulant.

Pneumonia patients will do much better, when they are able to tolerate hot sarco-peptone every two hours from the beginning. The course will be more rapid, the crisis will be passed with safety, and rapid convalescence result.

We may emphasize this mode of treatment in our diphtheria patients.

The entire absence of proteids is a marked feature of bile, and the bile has no digestive action upon proteids whatever. Foster says that "we may fairly assume that the secretion of even such a complex fluid as the bile, is in the main, the result of the direct metabolic activity of the protoplasm of the hepatic cells."

It is enough for our present consideration that tissue waste and albuminoid excess are burnt up (mainly in the liver), and oxidized in a descending series of retrograde albuminoid metamorphosis.

There is certainly an art in preparing and serving articles of food, and it may be made of great utility, especially with the acutely ill. Not that it should be used to seduce the patient to take food which will be injurious, or will not be tolerated by the stomach, but rather that the sight of it, because of its dainty neatness and surroundings, will stimulate the special senses in such a way as to excite the appetite to as nearly the normal point as possible. To many, the æsthetic element, which adds attractiveness, will increase the digestibility of the article ingested. Upon the cook and the nurse the physician is dependent for much that will help in the convalescence of the patient.

Acute disease is always accompanied by fever, consequently the physician should carefully weigh the effects of the different classes of foods in kind, in quality and in quantity, in order to successfully overcome the loss of body weight, and to offset the increase of urea and the excessive excretion of carbonic acid and water, in order to avoid the danger limit. I cannot urge too highly the use of carbonated waters in these cases; and they are to be used freely, all that can be borne, as they will be most agreeable to the patient in quenching thirst, they are refreshing, reduce abnormal temperature, and digestion and assimilation is better performed in their presence.

It is worse than useless to give a patient food he cannot digest in any form or quantity, and we cannot be too careful in this regard during convalescence.

It is just as important to watch the excreta as it is to know what goes into the stomach as food.

There is no point in typhoid fever which is of more importance than the quality and preparation of the food, carelessness or over zeal in this regard resulting in fatal results.

Diphtheria is one of the acute affections in which the pushing of nourishment to the utmost demands the constant attention of the physician himself, for it is not safe to trust so important a matter to any attendant, and the patient who cannot be induced to take sufficient food is going to die!

The buccal cavity can be kept clean and in condition to tolerate food, with a solution of Sanitas fluid; and this is important, because patients will refuse food oftentimes because of the sensitive or foul condition of the mouth.

The palate and individual idiosyncrasy are important factors in feeding the sick, and in choosing variety the palate as well as the question of nourishment should engage our attention.

It has been well said by another that "when life seems passing away under their eyes, the friends will often shrink from tormenting, as it seems to them, the sick man with food. Let them not despair; many a one has recovered after the doctor has taken his leave with a sad shake of the head, and without making a fresh appointment. And let them also be stimulated by the fact—namely, that the pains of death are aggravated, if not mainly caused, by the failure of the nutrition. Even when apparently insensible, the dying suffer much increased distress from want of food, though they cannot express their suffering."

LIFE IN THE CELL.

By James A. Carmichael, M.D., New York.

CORTEX CEREBRI—MENTAL FORCE IN CORTICAL CELLS.

"Sleep through terms of mighty wars
And wake to science grown to more.
On secrets of the brain, the stars are
As wild as light of fairy lore."

THE microscope, whose penetrating eye nothing escapes, however infinitesimal, has revealed the intimate structure of the cortex of the brain, and we are enabled to investigate its each and every individual element, and apply diligent inquiry as to the part each plays in the development of cerebral force, and as individual and collective factors of the great powers which constitute mind. To the student, be he a professional or other, who has kept pace at all with the cerebral explorations that have given such wealth of knowledge to the anatomy and physiology of the brain, and its hitherto hidden localities and secret places, it will be necessary to make only cursory recapitulation of whatever portions may come under our present consideration. Let it be borne in mind that we now make anxious and hesitating inquiry as to these cells and pyramids of the cortex of the brain, and the mysterious influ-

ences they exercise, with the faint hope of reaching some solution, however indefinite, of the functional duty of each one in the procreation and development of mental manifestation. By accredited authority we are told that "there is scarcely a doubt but that the cortex, taken as a whole, may be regarded as the region where most of the conscious mental processes take place. That it is the seat of thought, and that from the cortex, all conscious voluntary acts proceed. The whole hemisphere is covered by the cortex, but it has not the same structure at all points of the convexity. There is a sort of fundamental type, yet there is a wide departure from this type in different parts of the cortex, particularly in those layers which contain ganglion cells and nerve fibres." So much for this general construction of the cortex. From the same authority, let a few words explanatory of its individual construction, or more properly, the construction of its individual layers, suffice for the investigation of the cells and pyramids which compose each layer, their associations with each other, and the transmissibility of individual cell force from one cell to another, from one layer to another, and continuously from cells to nerve fibres.

A section of the cortex of a lobe in the frontal region reveals: 1. Just under the pia mater, a layer of neuroglia with numerous glia cells, and a thick network of very fine medullated fibres. 2. A layer of small pyramidal polar cells. 3. A third layer containing large ganglionic cortical pyramids. 4. Small and irregularly pyramidal cells. 5. Vast numbers of medullated nerve-fibres, generally continuous with the axis-cylinders of the cells, and their poles or antennæ. 6. Processes or poles of the cells directed inward toward the white substance of the hemispheres—Golgi. 7. The deeper we go into the cortex, the larger the pyramidal cells become, and the longer their apex processes. 8. Association fibres connecting different regions of the cortex with each other, convolution with convolution, lobe with lobe, and bringing all parts of the brain into communication, and thus establishing a common action. 9. Fibres from the over-arching dome of the cortex, to which the name of "corona radiata" has been given, passing downward and connecting the cortex with the deeper-lying portions of the central nervous system. Thus have we endeavored to give, "in petto," a general idea of the physical construction of the cortex of the brain, the object of our present investigation. For a more critical exploration of the innumerable associations of cells, fibres, layers and strata of medullary matter, involving all portions of the brain, medulla, oblongata and spinal cord, we refer the reader to the copious revelations by authority upon this vastly interesting subject; our present purpose is more restricted and more consistent with our limited space. Accepting then the common consent that the cortex of the brain is the great instrument by whose agency the mind, with all its vast and boundless potentialities, is made manifest and operative; and having seen, with the curious eye of the microscope, that it—the cortex—consists, as to its physical structure, of layers of cells of various sizes, of pyramidal shape, with numerous poles or antennæ or feelers, so to speak, constituting unipolar, bipolar, tripolar, quadripolar, or more, cells, communicating with each other by means of said poles or antennæ, and also with vast numbers of medullary fibres, "association fibres"—whereby an uninterrupted communication is established and maintained beween the cortex and its component cells, and each and every minute portion of the encephalon and its appendages. This being so, then may it not be consistent to propose, as a postulate, that the cells of the cortex of the brain must either play a most important part in mind generation, or must be the specific factors of the powers of the mind, individually and collectively, dispensing those powers by and through the inextricable network of nerve messengers, the association fibres, until mind and body become vivid and animated by the mental and physical "vis vitæ" that radiates from those mysterious little pyramids of gray, ganglionic matter, nestling snugly in the recesses of the cortical arch. Now we reach the point where the great problem stands before us, and one of two things must be done, either an effort, however ineffectual, to struggle with its possible solution, or beat a retreat, "hide our diminished head" and incur Pope's stinging sarcasm upon the temerity that urged the venture: "Fools rush in where angels fear to tread." We repeat here the same question we have asked before: What are the relations of cause and effect existing between cortical cells and mind manifestation?

In our investigations upon nervous matter, and its relations to the senses of olfaction, audition, vision, etc., our reader will remember that we ventured to offer the peculiar histological and physical nature of the nervous material contributing to the functional operations of these senses. We designated the material as being possessed of a specific character, of a quality or qualities intensely sensitive and vital, and responsive to extrinsic agencies of the most inappreciable, imponderable and subtle nature, such as light to the eye, sound to the ear, exhalations, aromatic and other, to the sense of olfaction. By these agencies, and the material upon which they expend their energies, vision, audition, olfaction, etc., were given and maintained. Now we come face to face with something more wonderful still; we have to struggle and strive to wrest, if we can, from the ganglionic matter that lives in the layers of the brain cortex, and shows itself in the form of little pyramidal bodies, stretching out their poles, antennæ or feelers, by which they are bound to each other, and by the association fibers, with other portions of the brain, the secret, of what? Of that mighty force whose power rules the world, the force of intellect, thought, reason, and all the wondrous agencies that interlink man with the immortal destiny to which he is ever

hastening. Can we wonder that we thrill and tingle in the contemplation of this stupendous thought? Are we a block or a stone, that our mind and heart shall fail to lift us up to those things that concern us when we go hence? Are these marvelous powers implanted within us only to serve our little span here, and then go out in darkness, leaving nothing but

"The foolish whistling of a name."

Following the same course of investigation as pursued in the case of the senses, and their dependence upon the nervous matter that bestowed their powers, let us examine the pyramids and other nervous matter of the cortex, and see what affinities, if any, they bear to each other. In the first place, what seems to be the physical nature of the material of which a cortical pyramid is composed? Even supposing that a pyramid were endowed with ordinary sensibility, that of itself would imply that it must have as its component element what is known as gray matter, the generic distinction between gray and white being, as everybody knows, not only as to the difference in color, consistence, general structure, etc., but, when considered physiologically, as to the equally well known functional differences between them. But we must go higher, and, as from a crowning height of thought, view the power or powers that live in this little pyramidal body, and that emanate from it. What did we see in the layers of the retina? Did we not see a succession of exquisitely delicate and sensitive nerve cells, rods and cones, with filaments reaching out and connecting them with each other, and with the optic fibres? Did we not also come to know that each cell was composed of the most vivid and subtle material element known in the microscopic history of the nervous matter of the body, and bearing the distinctive name of "substantia gelatinosa," by the way, one of the most egregious misnomers in the whole range of neurotic nomenclature, since, to call this intensely vital matter by a name that might class it with any other of the glia or glutinous materials of the body, betrays a poverty of expression to be deprecated, and inconsistent with the so vehemently asserted pretension of scientific accuracy and infallibility. Might we venture to substitute the name, substantia vivida, as expressive of its intense vitality?

We saw the same element in Corti's columns, and the cells at their bases, and also in at least one of the component forces of the sense of smell, its sympathetic force. We see it in its ministrations and compelling influences upon the vital functional operations of the *involuntary* forces of the organs that keep our hearts beating, our lungs breathing, our nutrition unintermitting, in a word, that keep life from lapsing into death. The old Hippocratic maxim, "Ubi irritatio, ibi fluxus," denotes a physiological and pathological fact. So may it be said of the substantia vivida, ubi est, ibi vita; wherever it is, there is life, and the more it prevails, the more vividly the glow and vigor of life prevail. Then the subtle vitality of the substantia vivida of the pyramids of the cortex is to the same element controlling the involuntary vital functional operations of the organs of the body, in the ratio of the difference between gross physical corporeal finite life, and the stupendous powers of mind, intellect, reason, memory, and all the other emanations from the brain that make up the grand total of intellectual energy of every kind. Having proposed certain points of similarity and affinity between the nervous matter of the cortical pyramids and that of the senses, as well as certain other points of wide difference, in which the cortical nervous matter is declared, in our judgment, to be a refined sublimation of the former as compared with the latter, we now desire to propose certain other analogous and differential points, wherein the functional activities of each may be compared and estimated. It will be remembered that we insisted upon the fibrillar individuality of the retina, that each fibrilla possessed *an individual specific chromatic* affinity with a certain *rayon* of light. We use this term advisedly, to signify not a ray of light, for the reason that a ray of light is composite and capable of prismatic decomposition, but that each fibrilla receives and appropriates its own specific rayon, prepared for it and transmitted to it by the prismatic decomposition of cornea, lens, aqueous and vitreous humors, and that it can receive and appropriate no other rayon, a fact proved by what is known pathologically as color-blindness. We recall, too, the auditory individuality of the cells and columns of Corti, by which each cell and column is in *tonal* affinity with *one single sonorous* impression. The same of the individual fibrillæ of the members of the olfactory trinity. Now, as to the existence of any affinity or resemblance in the functional operation of a cortical pyramid. May we dare propose that in every cell and pyramid of the cerebral cortical dome, their name is legion, there is a "vis insita," a hidden power in its substantia vivida that makes the generative factor, within itself, of itself, and by itself, of an individual force or impulse, mental, intellectual, moral, psychic, odic, with energies electric, magnetic, electromagnetic, mesmeric, spiritual, call it what you will.

May we equally venture that every thought, emotion, passion, impulse, intellectual or other, by which each cell or pyramid is agitated, may be and is transmitted and conveyed to other cells and pyramids in other regions of the cortex, and, by association fibres, to other portions of the sensorium commune, all of which, receiving the initial impulse of the thought, emotion or passion, have caught up the new sympathy, and the whole mind teems with visions of beauty and intellectual life, that were born and had their beginning in a little microscopic pyramid or cell, hidden away down deep in a cortical recess? See how they minister to each other, these wondrous cells that make us up into human shape. Take the mind of the poet, for example. The fragrance of a flower

falls gently upon the tendrils of that ganglionic member of his olfactory trinity, that exercises its subtle force upon the emotional cell agencies of his mind, and Wordsworth breaks out into song, and glorifies nature and her beauty,

> "Knowing that nature never did betray
> The heart that loved her—

Rural sounds, when she was decked in her robe of green, fell upon certain of the cells and columns of Corti, and made them vibrate in tonal unison. They were carried along the exquisitely delicate auditory fibrillæ, and through association fibres and polar attennæ to the cortical pyramids and cells; a great brain, ever abounding in the most entrancing measures of melody and harmony that the world has ever known, awakened; and Beethoven's "Pastoral Symphony" sprang into life. Its echoes have been borne along down through the lapse of the ages, and the hearts and minds of men and women still beat responsive to its sweet measures, and still glow with the same tender emotions that must have thrilled the whole inner nature of the genius that gave them birth.

The next view of the cortex that we desire to propose may be regarded as both physical and physiological. May it not be consistent to consider the cells and pyramids of the cortex as what we denominate objective and subjective, or cells and pyramids of reception-objective, and those of dispensation-subjective? We'll say that a cortical pyramid receives an impression extrinsically and objectively, through the senses of vision or audition, etc. That it revolves it, weighs it, estimates it, is agitated by it—molecularly, if you like—and from that molecular agitation, thought, reason, judgment are evolved and projected. Remember that for all this we have already proposed a postulate—we use this word according to its interpretation by one of, if not the best modern lexicographic authority, which designated a postulate as "a proposition, whose truth is assumed as a foundation for further reasoning"—viz., that the cells and pyramids of the cortex must either play a most important part in mind generation, or must be *the specific factors of the powers of the mind individually and collectively*. Such objective and subjective mind forces find, among their best illustrations, those forms of beauty and of most attractive charm, that leap into life from the sculptor's chisel and the painter's canvas. We all know the reply of Sir Joshua Reynolds, when asked by a curious and perhaps envious fellow artist, what he mixed with his colors: "Brains, Sir, brains," said he.

We have spoken of molecular, cell and pyramid agitation, and proposed that there was a correlation between it and the evolution of the forces, mental and other, of which the cell or pyramid was capable. If this be true, then the rapidity and endless variety of mental manifestations which constantly occur from brain action when in a normal state, may be characterized as merely the result of cell and pyramid *tonic force*, and representative of the healthful condition of these organs of the cerebral cortex. The opposite, or *atonic* force, may then be distinguished as that form of cell and pyramid force in which the powers are manifested feebly and by spastic or intermittent action.

Is this not the condition which we know and call brain-fag, and which, from our present point of view, we may equally call cortical pyramid and cell-fag? Let us see what pathology proper has to say upon this subject. If rapid sequence of thought is the result of undue molecular agitation of the pyramids and cells of the cortex, what must be their agitation in the wild, inconsequent and illusory vagaries of fever, and the weird and horribly suggestive ocular spectra and phantasmagoria of delirium tremens or phrenitis? Then again we look upon another picture of the decay of the tonic force of cell, pyramid and medullary fiber in the progressive paralysis of the insane, as demonstrated by Tuczek, in which "the network of fibres from the superficial to the deeper layers gradually disappears." This view of our subject, as the reader can readily see, spreads before us an almost illimitable field of exploration in the matter of cerebral disease, but further consideration of this vast subject would be foreign to our present purpose, and must be, though reluctantly, abandoned. Is our reader willing, then, to accept the idea which we have endeavored, how feebly we well know, to place before him, viz., *that each and every cell and pyramid of the cerebral cortex is a mental unit, with a capacity to generate mental force, the nature and quality of that force determined by the endowment of the cell or pyramid with a greater or lesser quantity and quality of the substantia vivida*, and also modified by brain localization, a point which we have not yet considered. Further, not only the nature and quality of mental force, but the preponderance of that force in direct ratio with the liberal or frugal physical contribution of the subtle nervous matter which we have denominated substantia vivida. If this be in accordance with truth, which no man can tell absolutely, then may we reckon the difference between the cortical force of a loutish rural gomeril, gaping wide-eyed at the deft tricks of a conjurer at a Punch and Judy show, and the lofty, towering and majestic intellect of a Shakespeare.

The *National Medical Review* thinks that it is all up with a physician when people get to calling him "Doc." "A man," it says, "may be called a thief, a liar, and a deadbeat, and yet he may prosper and live upon the fat of the land. But once let him be called 'Doc,' and his professional success is at an end. If a man calls you 'Doc,' you need never expect a penny from him for any professional services you could render. His answer is sure to be, 'All right, Doc, in a few days that will be all right.' 'Doc' means disaster. 'Doc' is the culmination of all calamity. 'Doc' is a catastrophe given at one stroke. 'Doc' is the warning that we have reached the extreme limit of our usefulness. 'Doc' is the hand which points us to the next town. Shun it, my young friend, as you would flee from a Kansas cyclone or a prairie fire. Knock the man down who first dares to speak it to you, and call upon the whole medical profession for vindication of your righteous deed."

CLINIQUE.

TWO CASES OF SUPPURATIVE PYELITIS—REMARKS ON DIAGNOSIS AND TREATMENT.*

BY JAS. S. CHENOWETH, M.D., LOUISVILLE, KY.

TWO cases of pyelitis recently operated upon present some points of interest which I thought would repay us for a few minutes' consideration.

Case No. 1 was a young man, twenty-nine years of age, operated on six weeks ago. He gave the following history: Was born and raised on a farm, and, while never robust, had no especial illness until after moving to Texas, seven years ago, when, getting very much run down from close confinement in an office, he developed a continued fever, which lasted two months. After a year's residence in Texas, with continued ill health, he returned to Tennessee and Kentucky. Since that time he has never been perfectly well and strong, but has suffered, off and on, with headache, backache and dyspeptic symptoms. Has lost fifteen or twenty pounds in weight in four months; is very despondent; complains of a constant dull frontal headache, and pain in his back and legs; pain in stomach and flatulence after eating. His skin is dry and muddy looking, tongue coated, bowels irregular, pulse 90, and regular; temperature, 99½°; examination of heart and lungs negative.

By the introduction of the stomach tube and by the examination of the withdrawn contents, at intervals of from two to eight hours after a test meal, the stomach was found to be moderately dilated, secretion of acid diminished, and digestion slow, but fairly good for a light meal. Palpation of left kidney region revealed some tenderness extending down over the course of the ureter, but the kidney could not be felt. On the right side there was a very noticeable bulging of the loin, and a tender, firm, movable mass, seemingly about the size of a normal kidney, but varying from day to day, could be felt rising and falling with each respiration. Daily examinations of the urine revealed the fact that there were intermittent discharges of small quantities of blood and pus with the urine, which in the interval was, in this respect, practically normal, but at all times contained large quantities of oxalate of lime crystals. The bladder was slightly irritable, requiring him to get up once or twice at night, but held a good quantity of water. No stone could be detected. Urethra very sensitive. Has never had gonorrhœa. Temperature taken thrice daily for a week, showed an evening rise of from one to three degrees.

As stated, there was in the right loin a movable, sensitive mass, which varied somewhat in size from day to day, moved with respiration, and which could be pushed up under the ribs in the normal situation of the kidney. Coincident with the diminution in the size of this mass was the appearance of pus and blood and oxalate crystals in the urine; the colon lay in front of the tumor.

An operation was advised for the purpose of drainage and of anchoring the kidney to the abdominal wall, and—as I stated to some of the bystanders, if there was anything certain in kidney surgery—to remove an oxalate of lime stone from the kidney pelvis, as there was every indication of its presence. The kidney was readily exposed by a transverse incision and carefully palpated between the thumb and forefinger, but no stone found. The introduction of a needle in various directions also gave a negative result. The organ was then drawn into the wound, and an incision, admitting the forefinger, made in the convex border. The hemorrhage was not great and was controlled by the pressure of the finger. The kidney structure seemed healthy; the pelvis was dilated and contained a very small amount of pus (there had been a discharge the day before the operation), but the most careful search failed to reveal a stone. The ureter was pervious. A rubber drain and a strip of gauze were carried well into the kidney pelvis, and a strip of gauze packed under the kidney, and all brought out of the center of the external incision, for the double purpose of drainage and causing adhesions which would hold the kidney in its position. Muscles and fasciæ were brought together by buried catgut sutures, the skin by silkworm gut; gauze removed on the second day and tube and stitches on the sixth. The fistulous opening, which at first drained freely, closed by the fifteenth day.

The highest point of temperature reached was 100½°, on the fourth day, falling to normal at the end of the week. Since that time there has been a slow but steady improvement in the general condition. The urine still shows some oxalate crystals, which are gradually disappearing under a strict diet, nitro-muriatic acid and lavage of the stomach and bladder.

The sequence of events in this case seems plain. The unusual close confinement of an office and the Texas fever resulted in a derangement of the digestive and assimilative processes, a dilated stomach and oxaluria. Following and dependent upon the oxaluria was the irritation of the whole urinary apparatus and subsequent emaciation, absorption of the perirenal fat; movable, displaced kidney; kinking of the ureter and pressure on the blood vessels; a dilated pelvis, which was frequently distended by urinary and septic products; absorption of these; more fever; more dyspepsia; less patient.

Case No. 2 was a woman, aged forty years. Father and mother, two brothers and two sisters, all living and in good health, except mother, who is now under treatment for lupus of the nose. Patient herself had good health as a girl, menstruation regular and painless. She was married nine years ago; had two miscarriages and two

* Stenographically reported by C. C. Mapes, of the Louisville Surgical Society.

children carried to term, one now four years old, the other seventeen months. No history of any inflammatory trouble in the pelvis.

Twenty months ago, or three months before birth of last child, she began to suffer with pain and soreness in left side, increased frequency of micturition, and swelling of the lower extremities. The swelling soon subsided after the birth of the child, but the trouble in the side increased. For the past eighteen months she has had repeated attacks of pain, with a feeling of fulness in the left side, accompanied by vomiting, rigors, fever and sweats. These attacks would last sometimes for days and sometimes for weeks, until as she expressed it, forcibly if not elegantly, the "*bile would break inside of her*," and she would get easy. She has been under medical treatment the greater part of the time, being treated for dyspepsia and ovarian trouble.

She has constantly lost flesh and strength, and is now the perfect picture of long standing septic infection. She has retained little or no food for the last two weeks. Respiration rapid, pulse weak and compressible, and beating 130 to the minute. Examination of heart, lungs and stomach region negative. Uterus normal, no induration or tenderness in ovarian region, but in the anterior vaginal vault the lower end of ureter could be felt, enlarged and tender. Palpation of right side of abdomen negative. On left side, by deep bi-manual palpation, a very tender, soft, semi-fluctuating mass could be felt in region of left kidney. Urine passed, after thorough and repeated irrigation of the bladder with solution of permanganate of potash, still contained a large quantity of thick, greenish, fetid pus. The bladder was free from stone.

Operation on Friday last by a transverse incision, beginning below tip of last rib and carried back for five inches, which readily exposed the kidney. The kidney pelvis was dilated and contained a teacupful of very offensive pus. The kidney structure was softened, thinned out, and at the point where my incision was made on the convex border, was on the verge of rupture. The ureter was thickened and dilated until it would admit a finger. Irrigation fluid passed into the bladder. Drainage was effected by a large rubber tube and gauze packing, which served to control hemorrhage, and kidney was attached to the abdominal wall by two silkworm gut sutures.

The patient was in rather a precarious condition for twenty-four hours, from the persistence of the nausea and exhaustion, but is now doing nicely. Gauze was removed in thirty-six hours, and the urine is draining freely through the tube. Right kidney seems to be doing its work all right.

The original cause of the trouble in this case, I believe, to have been the compression of the ureter by the fœtal head.

The most noticeable feature in connection with both of these cases, is the fact that both of them "had suffered much of many physicians," and that neither of them had gotten that all important thing to physician and patient alike—a correct diagnosis. Why? Not because these men were ignorant of diagnostic methods, but because they were guilty of that sin—to which we are all so prone—of jumping at conclusions without a thorough and painstaking examination of the case in hand, not only of the organ to which the trouble is referred, but of the whole body from top to toe, with due regard at the same time for the family history. This system of snap diagnosis or no diagnosis is a growing evil, that we as surgeons, led on by the fascination of the "exploratory incision," are too often guilty of fostering, to our own and our patient's hurt.

In these cases the pathological process is usually a complex one, the symptoms often misleading, the kidney lesions very often overlooked.

A diagnosis of pyelitis being made, the treatment should be directed to the removal of the cause, where possible, to keeping the bladder in an asceptic condition by antiseptic irrigations, with or without continuous drainage; to flushing the urinary tract from above by the free use of pure or medicated waters; and lastly, in the severer cases, with continued suppuration and evidences of retention of pus and urinary products in the kidney pelvis, by direct drainage.

DISCUSSION.

Dr. W. O. Roberts: I think Dr. Chenoweth is to be congratulated upon the result, not only of his diagnosis, but also upon the operations that he has performed in these cases. I have never operated for pyelitis, excepting where there was a large tumor, and of these cases I have had four; one of them died shortly after the operation, one lived a month with a fistulous opening, and the other two got well. In one of them there was a stone, in the others no stone was found. I think the procedure that the essayist followed, that is, the transverse incision, is the one which is done by Koenig, Kocher and Abbe. Abbe reports several cases in a recent number of the *Annals of Surgery*, where large tumors of the kidney were removed by the cross incision. He speaks very highly of this incision. In all cases where the kidney is to be thoroughly explored, it seems to me it is the most rational incision to make. I think you can get at the kidney and the pelvis of the kidney much easier by the transverse incision; except in large tumors it is not necessary to go into the peritoneum. In all cases of small tumors the peritoneum can be pushed forward out of all danger by the transverse method; but in very large tumors then it becomes necessary, and I think it is better to open the peritoneum, so that you can examine the other kidney.

Dr. A. M. Cartledge: First, in regard to the diagnosis of these cases: I think we overlook cases of pyelitis, and they are often treated for indigestion, etc. It seems to me that Dr. Chenoweth has very clearly outlined the relation in these cases; that the origin of the trouble is some deficiency in oxidation of the nitrogenous sub-

stances, and there is a very decided gastric reflex. If kidney trouble has been established then it becomes more pronounced, or the symptoms may be entirely referable to the stomach. This reflex is not so much a *reflex* as it is a condition of *chronic sepsis*, which gives rise to the gastric symptoms, in many cases nausea or even vomiting, discomfort in the bowels, etc., and I am satisfied that many times cases of this character are treated for malaria, for incipient phthisis, etc., when the probabilities are a careful examination, as suggested by the essayist, would reveal the fact that many of them were pyelitis. I was particularly interested in that portion of the paper in regard to the condition of the ureters. In all cases of chronic pyelitis I believe that a condition of ureteritis is present. Dr. Howard Kelly has called attention to the fact in his forcible way that it is entirely possible to probe the ureters fully one and one-half inches from that point where they enter the bladder. If the patient is emaciated, the ureters can easily be outlined. I saw the second case referred to in the paper with Dr. Chenoweth yesterday, but did not have the pleasure of seeing him perform the operation; I think the case promises a great deal. The urine is now practically clear, and it seems to me her chances for recovery are very favorable. One word about the incision: the transverse incision seems to me to best meet the indications. I have been using an oblique incision in my operations on the kidney, but since I have seen Dr. Chenoweth make the transverse incision, and seeing its advantages over all others, I shall discard my former mode of procedure, and adopt that advocated by the essayist. The possibilities or opportunities for observation by this transverse incision are so much greater than by the oblique or perpendicular, that there is no comparison. The first case I saw operated upon by the transverse incision permitted an ocular examination of the kidney, which does not obtain by any of the other methods. Kocher, of Berne, calls attention especially to the advantages of it in avoiding the nerves. The cases reported by Dr. Chenoweth promise a great deal, and are very interesting, particularly from the fact that they had passed through the hands of several medical men without a correct diagnosis having been made. Of course we recognize that there is some risk in anæsthesia where there is any lesion of the kidney, but I believe when it can be reasonably demonstrated that the condition is a suppurative one, operative measures are demanded, and direct drainage affords the best chance of recovery beyond a question of doubt, whether there be a foreign body, or whether a concretion has formed or not. It seems to me that this is an exceedingly important branch of surgery.

Dr. Preston B. Scott (visiting): I am glad that my associate, Dr. Chenoweth, has reported these cases, because they illustrate the importance of a thorough and careful investigation of all cases by general practitioners. One of the cases he refers to was under my observation, and recognizing much obscurity in diagnosis, I referred it to him, to assist me in determining the true nature of the disease. The prominent gastric symptoms not yielding to direct treatment, it was decided that they were reflex. It was the first case I had in which I had an opportunity for the scientific examination for disease of the pelvis of the kidney, and it has been very gratifying to observe the process of his investigation, both by means of urinary analysis and the microscope. Exploratory incision confirmed the view that he took of the case before his final test was made. Everything had been done in the way of medicinal agencies, applied directly to the stomach, including lavage, that could be suggested, without relief. It is a little peculiar that these cases occur by groups. I have been for several years without seeing anything like this, then find a series of cases within a few weeks. Two of my cases illustrate another important point—that these conditions of the kidney may exist for a long time without much constitutional disturbance; one who passed a calculus in his youth, has been in good health until the recent recurrence of nephritic colics. I have another case under observation now with which my associate, Dr. Cartledge, is familiar—a robust man who has since childhood had frequent attacks of severe pain in the left kidney, otherwise in perfect health. An examination to-day showed pus in the urine in a small degree.

Dr. A. M. Vance: Dr. Chenoweth is certainly to be congratulated upon the fact that the incision in the first case closed up so promptly, and so thoroughly. A fistulous opening is one of the most frequent sequelæ of abscess of the kidney; at least, that has been my experience. From the history of the second case, I fear that the termination may not be so fortunate. I believe thoroughly in exploring these cases when we feel that drainage is necessary; and the idea of anchoring the kidney is also a good one. In this way we are sure that we get a good opening, and we may hope for better results as regards a perment fistula. I have operated once on a case of this kind in a young woman where the kidney was entirely destroyed by this process. The patient after operation gained in flesh and became perfectly well, except the fistula. One Sunday evening she bathed her hair, and the following Tuesday she became œdematous over her whole body to an enormous degree and died very quickly. So I think it is important in our prognosis that we consider that the other kidney may become overworked, and we lose our patient secondarily. I expect if we could do so, in cases like the second one operated upon by Dr. Chenoweth, that nephrectomy would be the best operation, on the plea that the prolonged suppuration might bring about lardaceous changes in the good kidney, and so endanger the life of the patient.

Dr. Wm. Bailey (visiting): I rise to compliment the essayist upon his paper, to me a most interesting one. While it is out of my department, yet

I can but commend, of course, his charge to us all as to thoroughness of investigation. Still, there are some questions I would presume to mention, even in connection with surgery. One is, that the other kidney ought to be interrogated before an operation is performed upon a kidney, for, if I understand it, you never know until the incision is made whether it is going to be simply opening up the pelvis or going to be a nephrectomy, and it occurs to me some advantages might be gained by devising means by which the other kidney's condition might be interrogated. Then, I would spring also the question whether, under the facility with which now it is claimed that the ureters may be catheterized, it is not possible to treat such cases successfully even without surgery? It is claimed now that in the female it is a very easy thing to pass a catheter a considerable distance up the ureter, and we know that particularly in hydronephrosis and possibly in pyonephrosis the obstruction may be at the beginning of the ureter at the pelvis of the kidney, or it may be down near the bladder; therefore would it not be possible, by proper medication passing through the circulation, to improve the condition of the mucous membrane? If we could empty the pelvis, if we could relieve the stricture as you would a stricture of the urethra, dilate it if you please, getting drainage to the pelvis in this way, would it not be possible to treat medically such cases without so severe a procedure as surgery? I simply from a medical standpoint would ask attention to these points. As I have already stated, it is claimed now that catheterization of the ureter can be easily and readily done in the female, and in this way the condition of the other kidney can be determined, by obtaining urine directly from the ureter, before it has become mixed with urine from the diseased kidney.

Dr. Jas. S. Chenoweth: In my paper I spoke especially concerning the diagnosis and the necessity for a thorough examination of these cases. While I only referred to two, I have seen several other cases recently with stomach and kidney troubles, in which a little care in the examination quickly cleared up what seemed to be obscure cases. The symptoms may be referred to the stomach and the trouble be in the kidney, or *vice versa*. You all remember the case of Mr. C——, who was exhibited before a meeting of this Society some months since, suffering with an abdominal tumor. Some thought it was a floating kidney, but exploratory incision proved it to be a cancer of the pylorus. In that case, by introduction of the stomach tube and washing out the stomach, a differential diagnosis could have been made, as was demonstrated after the operation, the stomach being easily recognized by inspection, palpation and percussion, when distended with air or water. I saw a case some time since with Dr. Howard, suffering from severe and distressing gastric symptoms. A floating kidney was found, which was pushed back in place, the stomach was washed out, and she was perfectly relieved. As to the catheterization of the ureters: I have had no experience with that procedure. I hardly think in a case far enough advanced to give any evidence of trouble by palpation of the kidneys, that much good could be accomplished except by incision and free drainage. Even if we could successfully catheterize the ureters for an inch and a half, as has been stated, there would almost certainly be pockets of pus blocked up in the pelvis of the kidney, which would not be emptied by such catheterization. As to whether we should do a primary nephrectomy or a nephrotomy in these cases: Statistics show that nephrotomy is a much more favorable and preferable procedure as a rule than the more radical operation of nephrectomy. The mortality from nephrectomy is very high. There is always some question as to whether there will be any function in the remaining portion of the kidney, and I believe in most cases we should give the patient the benefit of the doubt. If the other kidney proves healthy, and suppuration continues, then do a nephrectomy. The transverse incision was chosen in these cases, because, in the first place, it gives better access to the organ involved, and the opening can be made without going through any important structures. The other kidney can be readily examined through this incision, by nicking the peritoneum which appears in the extremity of the wound, the opening then being sutured, and the operation completed extra-peritoneally.

SOME REMARKS CONCERNING THE MANAGEMENT OF SO-CALLED DYSPEPSIA.*

BY J. B. MARVIN, M.D., LOUISVILLE, KY.

I RECOGNIZE that the subject I have chosen is a very old and broad one, yet I believe there is much we have not dreamed of in regard to the management of so-called dyspepsia. I do not know whether my experience has been anomalous, but, certainly, I have been materially worried by cases of so-called nervous dyspepsia, and I thought the subject of sufficient importance to bring before you to-night.

Since Czerny's experiment of removing the stomach of the dog, and proving that the animal could survive and digest food after the removal of that viscus, some authorities have gone so far as to claim that it is an unnecessary organ, that it was some mechanical sort of contrivance which we really did not need. Kussmaul and his followers, however, I think have given the death-blow to that idea, and the introduction of the stomach tube, the withdrawal of the contents of the stomach, and the submission of these contents to chemical tests, have put some of the lesions of this organ on a more scientific basis. If I have read literature aright, however, the introduction of the stomach

* Read before the Louisville Clinical Society, May 22, 1894. Stenographically reported for this journal, by C. C. Mapes.

tube has been abused in Germany, but it certainly has not been used sufficiently in this country. All of you, I think, will agree with me that you often see cases where you have tried powders and tonics, the pepsins, Panopepton, acids, alkalies, and everything generally recommended in books for the treatment of dyspepsia, so-called, without benefit. It seem to me that the condition in such cases is largely a neuroses, dependent upon overwork or anæmia. The overwork may be mental or physical; you find it in women, although I have seen just as bad cases, if not worse, in men. I am thoroughly convinced that the nervous manifestation of indigestion is just as liable to occur in men as in women. Women may be a little more liable to it because of frequent pregnancies, lactation, etc.

First, we realize that the stomach is a hollow organ coated with mucous membrane and certain glandular structures, acting on the whole as if it were a gland, secreting and emptying into this cavity certain fluids, pepsin, muriatic acid, etc. Next, a muscular coat, which, by contracting and relaxing, produces a churning or mixing of substances taken into the stomach with the gastric juice; next, and just as important, if not more so, in my estimation, it must have the motor power to propel that mixture through the pylorus into the duodenum; then to have healthy digestion you must have good motor power. Next, the stomach must be able to secrete muriatic acid and pepsin; there must not be any abnormal conditions that will interfere with this process. Now, by the method of Kussmaul, introduction of the tube and certain other means, you can test very accurately in a given case the motor power of the stomach. In this way we can ascertain the cause of most of these distressing troubles. You can test, certainly, whether any acid is present or not, and whether in sufficient quantities; also, whether pepsin is present in quantity necessary for proper digestion Tests may also be applied for other ingredients, which, abnormally, are secreted by the stomach.

I have found it a very easy matter to introduce the tube. I use the ordinary flexible tube with a bulb in the center and a funnel at the end. If I wish to watch the flow I generally cut the tube in two and put a glass tube in between the two ends. I do not grease the tube, simply wet it with water. I generally make the first introduction, and teach the patient to make the next one himself. If a man is suffering, and he usually is, he is very willing to submit to it. As to position: I have the patient sit up in a chair, throw the head back, and then, with care, introduce the tube; at the first trial he will probably cough, and perhaps vomit, but after a little while in it goes, and the next time it is very much easier. It is not necessary, in my experience, to use cocaine, grease the tube, or make any local application.

The typical way of obtaining a sample of the contents of the stomach for testing purposes, is to take an empty stomach and then give a test breakfast, or a test supper. I generally have the patient take in the morning a cup of tea and a warm roll or a couple of rolls. In an hour or an hour and a half afterward I introduce the tube. Then, by making him cough, and squeezing the abdomen, especially if he makes an effort to cough, you can get a teaspoonful or more of fluid from the stomach. I have never found it necessary to use a suction pump for withdrawing the contents of the stomach; but by the squeezing process, and making the patient cough, a quantity sufficient for all practical purposes can be obtained.

After a sample of the fluid has been withdrawn, the first thing is to test it for acid, which is a very simple process, by means of litmus paper. If it is alkaline or neutral, it is abnormal; then you can see what acid is present. In healthy digestion at first it is lactic acid, which hardly lasts more than half to three-quarters of an hour, then it is muriatic acid for an hour to an hour and a half, when it changes again to butyric or lactic acid. To make the test is very simple. First, I use litmus paper, to see whether there is acid or not; next, the best means I think is Gunzburg's reagent, which is composed of

Phloroglucin, ...	2 parts.
Vanillin, ...	1 "
Alcohol, ...	30 "

It is desirable to have a fresh solution; I make up a small quantity of this for each patient. If you will take five or six drops of this solution and add three or four drops of the withdrawn contents of the stomach, and heat on a porcelain capsule, if muriatic acid is present the result will be a beautiful crimson color around the margin. The resorcin solution is more stable, but not so delicate. If lactic acid is present, you use a mixture of carbolic acid and perchloride of iron; that gives you nearly an amethyst reddish color. If you will add to that a few drops of the contents of the stomach in the lactic acid period, you will change it into a yellow color, which is a sign of abnormality under these conditions. Then you want to go a step further and determine if the stomach is capable of properly digesting food. You can test starch by means of Lugol's solution—blue or blackish-blue color if starch is present. You can go a step further and test for sugar with Fehling's solution. The last test, for albuminoids, is the most complicated and perhaps the least reliable.

I have taken some of the contents of the stomach after I had applied these tests as I have intimated, and then added a little coagulated egg albumen to see how it would digest it. The stomach has to convert the natural albuminoid bodies into assimilable albumen and peptones, and this must be done through something that is contained in the muriatic acid or pepsin secretion. Some authorities advise that we go on and test some of the filtered contents to see if albuminoids are present; this is done by heating; a precipitate means albumen or syntonin; filter and add nitric acid, a precipitate means propeptone; then after

that has filtered off, add a small quantity of solution of tannin, which will throw down a precipitate and means peptone. Now, there is one other test which is just as important as the foregoing, that is, to give us some idea of the motor power of the stomach. This test is based upon the idea that salol will not be decomposed by acid gastric juice, but passes through the stomach, then into the alimentary tract, and there is decomposed into salicylic and carbolic acid and is directly eliminated through the urine. In order to make this test I would give a patient ten or fifteen grains of salol, either in a capsule or coated pill; then following this about forty minutes I would test the urine for carbolic or salicylic acid. If it does not show in the urine in about three-quarters of an hour, then it is evident that the stomach is sluggish and does not propel its contents directly into the duodenum. Sometimes you will find that the salol is eliminated through the kidneys for quite a number of hours, lasting as long as twenty-four or thirty hours. Certainly in cases where salol is being eliminated by the action of the kidneys for thirty hours after administration, it is evident that the stomach is not only in a sluggish condition, but is also wanting in motor power.

As I have already said, these tests are all easy enough, only requiring a little patience and care, but by them we can separate a vast number of cases and see which belongs to this or that class, and can keep our therapeutics on a rational basis.

Now, take the last class of cases—loss of motor power—we find troubles of various kinds may interfere with the motor power of the stomach through the nervous system; functional inactivity of the stomach may give rise to many symptoms. Some underlying cause might produce increased hyperacidity of the stomach; or it may act in another way, diminishing the secretions, which we often see in cases of chronic gastric catarrh, especially in drinkers and old people. Prolonged loss of motor power of the stomach leads to atony; this would give rise to pain, flatulence, and certain dyspeptic symptoms which we call eructations, as well as nervous manifestations, palpitation, vertigo, etc. If there is hyperacidity, there is very apt to be vomiting, which is not a marked symptom in atony. In some cases atony simply produces inconvenience of the stomach, pain after the ingestion of food, or flatulence, eructations, vertigo, and other symptoms known to all; if allowed to continue in its action will result in something more serious. Atony or loss of power of any viscus or muscle carried one step further is paresis, which is followed by ectasis or dilated stomach; this is still more disagreeable than other forms of the trouble. This may be suspected in every case that has lasted a certain length of time. A man or woman comes to me with history of constipation, so-called biliousness, and with gastric symptoms which are denominated dyspepsia, and which we know cover a large variety of questionable cases, with a condition of eructation of gas, palpitation, etc.; there may also be very decided pain after the ingestion of food, or pain on pressure over the stomach; then vomiting, especially some time after food has been taken, a day or possibly two, which can be determined by the fermented character of food vomited, always indicates dilated stomach. This condition exists much oftener than is supposed. The way to detect it is simple enough. I would not advise any of you to try the method advocated by some authorities—that is, with seidlitz powders, letting them mix in the stomach, generating gas there. This method is attended with some danger. A simpler but a crude way is to first percuss over the stomach with the patient in a standing posture, then let him drink water, a half pint at first, and percuss, allowing the patient to continue drinking, and continue percussing to see how low down the stomach can be mapped out. The stomach may extend as low as the umbilicus. A better way than the above is to pump air into the stomach. After you have inserted a stomach tube, attach an air pump, and in this way you can dilate the stomach until its outlines can be distinctly made out. This is very easily done, especially if the patient is emaciated.

If the condition is one of anæmia, in other words, if the atonic state is allowed to proceed, you have malnutrition as one of the sequelæ, or you may have, by interference with the secretions of the stomach, atrophy of the glandular structures of that organ; you may have then ulceration of the stomach; subacute gastritis may set up, which is also a more serious condition.

In regard to the management of these cases: I have narrowed it down to a very few simple things. The majority of the cases I see of gastric troubles in men or women, I find the best results are obtained from the mercurials. Those cases of biliousness, so called, which are nearly always dependent upon indigestion, are benefitted more markedly, in my experience, by either small doses of calomel, or calomel and ipecac, or the old-fashioned blue pill. How it acts, whether by exciting the flow of bile, whether by stimulating the mucous or glandular structures, whether by toning up, as it were, and increasing the motor powers of the stomach, in this way hastening or aiding digestion, or whether acting as an antiseptic and purgative, I do not know. It is as old as the history of medicine, and in my experience has given better results than any other one agent. In some cases I have given five grains blue mass on alternate nights, keeping it up for quite a while; in some cases only one grain was given. In some cases I have found it necessary to give a little colocynth. I have employed this treatment extensively, and have never had occasion to regret it. I have had one or two cases that I have had opportunity to watch for a period of ten years treated by use of calomel; they would keep a record of the amount of calomel taken from day to day and week to week.

On general principles you might say that iron

was indicated in these cases; I think the class in which iron is indicated from the start is rather small. Iron has proven rather an inefficient and unsatisfactory remedy with me. I generally give the mercurials first, relieving constipation and stimulating glandular secretion.

Now, there is another class of cases in which you would not use the mercurials; cases where you want some mild cathartic action; cases in which salines in hot water before meals wash out the stomach and empty the bowel. In such cases I have found that Rubinat water acts more satisfactorily than any of the natural saline waters, is less griping and more pleasant. The next, and more important in a certain proportion of cases, is rest. Given a woman that is nervous and hysterical, suffering from a great many of the symptoms already detailed, I believe the best results can be obtained by putting her to bed, getting her to sleep twenty-four or even thirty hours. Great benefit is sometimes obtained in this way, by giving the patient absolute rest. I know most authorities recommend exercise rather than rest; of course, a certain amount of exercise is advisable, but these patients also need rest and sleep and plenty of it. I am satisfied that another important thing in the treatment of these cases is isolation. I have in mind now the case of a lady that had emesis a number of times a day, which had lasted for a long time, despite any means of treatment that had been adopted. Under a few weeks' management such as I have described, she entirely recovered, and is perfectly healthy to-day. Another case, of a similar character, occurred in the person of a little boy. I give very small doses of bichromate of potassium, one-tenth or one-twelfth of a grain in solution, pretty well diluted, taken on an empty stomach, repeating this dose two or three times daily. In some cases this remedy seems to have a very marked effect, and it is certainly worth a trial. My experience with the old remedy is limited. It has been in use extensively by our Homœopathic friends.

Next, in those cases where there is a deficiency in secretion, I do not give pepsin, pancreatin, bismuth and all such agents which have long been so popular, but give instead muriatic acid in large doses, following Ewald's method. Some patients have the idea that they cannot take acid; that the stomach is already sour, that they suffer from belching, etc. I have found that some of these are the very ones that need acid.

In that class of cases where you have a hyperæsthesia and other neurotic symptoms I have been using for the last fifteen years a stock formula varied to suit the individual case—bromide of ammonium in simple composition.

Bromide of ammonium .	5 or 10 grs.
Camphor water	½ dr.
Glycerine	½ dr.

To this formula I sometimes add a drop or two of Fowler's solution. I have had very good results from this simple mixture.

I have recently had under my care the case of a bank cashier, who suffered so much distress from indigestion that he had tried on several occasions to throw himself out of a second story window; he tried once to jump from a moving train, and would have done so had not his friends restrained him. Upon investigating the case I found that he was dieting himself to the extreme, and that the distressing symptoms were most manifest shortly after the ingestion of food. I came to the conclusion that the extreme dieting was increasing his anæmia, which was the cause of all this nervous manifestation, and administered the injunction to him to eat more, not to diet himself, encouraged him to eat everything that was wholesome and rational; to eat if necessary five or six times a day, at short intervals. This, in connection with the simple mixture above referred to, worked a revolution in his case.

I have simply given the principal outlines that I have followed in the management of these cases, and I have had some very troublesome ones. I have had a degree of success, and would like to have more. The character of cases that I have described give rise to more anxiety and are much more tedious and unsatisfactory in the way of treatment than almost any class of cases with which we come in contact, and the question naturally arises with all of us how to treat them and what is the best means of effecting a cure.

A SUGGESTION IN FEEDING OF INFANTS.

By F. Spencer Halsey, M.D., New York.

ON November 14, 1893, I was called to see a child twenty-one months old, who was said to be suffering from stomach trouble. I found, on arrival, that a few days previously the child had been taken with an attack of vomiting, and complained of pains over the epigastric region. The bowels were slightly loose, the stools being greenish in color, and with a dry, musty odor. The vomiting and pain continued, and as they were not relieved by simple remedies, the parents sent for me on above date. The temperature the first day was 99°, pulse, 128. The child lay in the cradle, pale, and with legs slightly drawn up. Under appropriate treatment the vomiting gradually ceased, and the general condition of the child improved in all but the digestion. Here, for a while, it seemed as if nothing would be properly digested. Milk, specially obtained and carefully prepared, passed through the bowels in lumps of curds; even when combined with barley and lime water the action was the same; the stomach absolutely refused to digest what was taken, and, what was considered a speedy recovery suddenly became a case of almost actual starvation. About this time my attention was called to an article by Dr. Chapin, "Studies in Infant Feeding," in which he spoke of experiments made with food to which maltine had been added, and the exceptionally good results that were obtained among the number of

children so treated. With this in mind, I determined to give the same a trial, and was very agreeably surprised with the result. From the first the specially prepared milk, to which a half teaspoonful of maltine had been added, was almost entirely digested, and when the bowels moved there was very little of the lumpy, curdy character. The next day less, until, by the fourth day there was none, and the bowels moved in a perfectly natural manner, and, from that time on there was a rapid convalescence, and by the end of ten days, perfect recovery. The child was kept on the above prepared milk for some weeks after, and gained in weight and strength very perceptibly, and has had no interference in any way with the digestive function since. This method of preparing milk I have used in a number of cases, and with marked success. It is undoubtedly a fact, although not generally known, that maltine contains some digestive principles other than diastase, for this ferment acts on starch, and has little or no influence on albuminoids, and it is evident that the above-mentioned result was largely due to the peptase, which is a bi-product with diastase, and is liberated in the malting process under the same conditions. In feeding infants by this process it is, of course, essential that pure, fresh milk be used. The processes of sterilization and Pasteurization destroy noxious germs, but they do not alter the physical characteristics of the tough curds of cow's milk so as to render it similar to human milk; but this process does, and makes it more readily assimilable by the weakened or diseased digestive organs.

RETROSPECTIVE DIETETICS.

Meat in Epilepsy.—Regarding the diet of epileptics, Dr. William H. Thompson says in the *Medical Record*, that he has been in the habit for years of cutting off nearly all flesh food, relying on milk for the nitrogenous element, especially in the form of matzoon or fermented milk, and a moderate amount of vegetable food. Peas and beans increase the albumen in the urine in chronic Bright's disease, and are apt to aggravate any renal trouble. Probably beans increase intestinal putrefaction, aggravate kidney troubles, and enhance the dangers of convulsive nervous disorders. There is a great difference between nitrogenous food as found in milk and as found in flesh. The fact that almost all carniverous animals die in convulsions, and that the feline tribe are peculiarly liable to fits, gives some reason for believing that a meat diet is not favorable for epileptics.

Dietetic Treatment of Chlorosis.—A paper on the dietetic treatment of chlorosis, based on tissue metabolism, by Prof. Carl Von Noorden, of Berlin (*Intern. Med. Magazine*, May, 1894), concludes as follows: "Most chlorotic girls feel weakest and worn out during the hours of the forenoon. During these hours they lounge about, and are incapable of any proper kind of work. This condition, which is very uncomfortable on the one hand, and, from the educational point of view is, on the other, directly harmful, may best be mended if the English fashion is adopted, which consists in commencing the day with a good, hearty meal. I can scarcely praise this custom sufficiently. I recommend chlorotic girls to drink slowly half a litre of milk of the best quality while they are yet in bed in the morning. They must take time, and occupy at least a quarter of an hour in consuming this quantity. They ought to rise half an hour later, and they should be rubbed briefly with a dry rough woolen towel. This is to be followed by the breakfast, consisting of a small cup of tea, one or two slices of buttered toast, and plenty of meat. I consider it extremely desirable—the physiological reasons for this are easy to defend—that these patients should take in at breakfast, before the daily work commences, as much albumen as possible. Two and a half hours later some bread and butter and two eggs are to be eaten, followed immediately afterwards by drinking a quarter of a litre of milk. If considered advisable, for special reasons, a small glass of sherry is now permissible. If the food supply is thus regulated, we find that chlorotic girls easily pass those hours of the day which we know by experience are the most disagreeable for them. I do not give any specific directions for the remaining meals of the day, as it is less important to follow fixed rules with regard to them."

AN OPERATION FOR THE RADICAL CURE OF FISTULA IN ANO BY AN IMPROVED METHOD, WHICH SECURES PRIMARY UNION AND COMPLETE RETENTIVE POWER, EVEN WHEN TWO INCISIONS THROUGH THE SPHINCTER ARE NECESSARY.

In an article which appeared in the July number of the *American Medico-Surgical Bulletin* under the above title, Dr. A. H. Goelet, of New York, described an operation which in his hands has been very successful. As in the older methods, the sphincter is completely divulsed, and the fistula opened into the rectum and thoroughly curetted. The important part of the operation, however, lies in the method of suturing. This is as follows: In the deeper structures two or more rows of buried, continuous sutures of fine catgut are employed, each row beginning at the upper angle beneath the mucous membrane, and ending just within the integument of the perineum, covering up the preceding row. In the rectal mucous membrane and the integument of the perineum, interrupted sutures of chromic catgut are used. The edges of the sphincter muscles are approximated with especial care.

Deep sutures introduced through the rectal mucous membrane are deprecated by the operator, because of the danger of leakage of septic matter along the track of the sutures, and because they obstruct the circulation and increase the œdema, thus interfering with primary union.

Dr. Goelet reported a case where two fistulæ existed, which had been treated after this method. The result was very gratifying. The wound healed by primary union, and although the external sphincter had been cut in two places, at opposite points, and the internal sphincter at one point, the patient had complete retentive power. This result, contrasted with that obtained by the older methods, establishes this as an ideal operation.

The article concluded by emphasizing these essential details in the technique of the operation:

1. Complete divulsion of the sphincter.
2. Perfect asepsis.
3. Incision of the muscles at right angles to the fibres.
4. Thorough curettage of all fistulous tracts.
5. The use of buried sutures of fine catgut for the deeper structures, and interrupted chromic catgut sutures for the mucous membrane.
6. The rectal tube and dressing.
7. Absolute inactivity of the bowels and a liquid diet for five days following the operation.

TAKING PRECAUTIONS.—Little Corrine—"I know a awful funny story, Fowence. My mamma told me when I had the dipferia."

Florence—"Tell me, won't you?"

Little Corinne—"Oh, I can't, 'cause you might catch the dipferia, don't you see?"—*Judge*.

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KOCH'S DIPHTHERIA CURE.

ONE of the greatest triumphs of bacteriological study is seen in the strictly scientific steps by means of which the cause of diphtheria, one of the most fatal in the whole category of diseases, and when not fatal, liable to be followed by secondary trouble, is not only ascertained, but the disease itself prevented, or when taken within the first twenty-four hours promptly controlled. Out of 250 cases treated by the local health board of Berlin, 100 per cent. recovered when the inoculation took place on the first day, and 97 and 87 per cent. respectively when it occurred on the second and third day. The work recently inaugurated by the Health Department in diagnosing for the profession, through the usual microscopic means, true diphtheria, has been of inestimable advantage to the profession, as it determines not only the character of the disease, but also, by the absence of the bacillus, when it ceases to be infectious. Careful instructions are given as to how to obtain the germs, which are promptly brought to the department through any of the forty stations it has established through the city. The discovery of Koch, however, is considered by the Health Department of so much importance that it has applied for an appropriation of $30,000 to establish a plant, which, Dr. Edson says, will furnish the means of saving twelve hundred lives before the end of the year.

The wonders of bacteriology were only beginning to be unfolded when the attention of Klebs was directed to the false membrane or deposit in the throat of diphtheritic patients, with the belief that this foul and dread disease had, like so many others, its own specific *raison de être*, its own essential "worm in the bud." The result of Klebs' investigation, reported by him at the congress in Weisbaden, in 1883, showed that he had found a bacillus in the diphtheritic membrane which he believed to be the true cause of the disease. The following year Loefler confirmed Klebs in the discovery. Further investigation of the bacillus of diphtheria shows, incontestibly, that this pestilent microbe has the power to produce deadly poison in the form of a toxine, and that the cultured broths, freed from microbes by filtration and given to animals, determine symptoms and lesions identical with those produced by the cultures of the bacillus itself. It may be assumed and is to-day undisputed that the Klebs-Loefler bacillus is the true and efficient cause of diphtheria.

The fact that the malignancy of diphtheria rests not so much in the presence of the bacilli as in the deadly toxine they secrete, and which is absorbed into the system with such rapid and fatal results, led to the antiseptic and tonic treatment found to be most efficient in other diseases. The spraying the throat with such powerful antiseptics as peroxide hydrogen, with the use of some form of mercury, was found to a certain extent to destroy the bacillus and neutralize the poison, but with the discovery of Koch, if in future experiments it proves as efficient as in the past, we have in our hands the means of wiping out the disease. The treatment as it has been practised by Koch in Berlin on over 250 cases, we give in the language of Dr. Edison, ofthe Health Department. In this connection it may be stated that the use of the remedy is entirely devoid of danger.

"1. In diphtheria, death, as a rule, is due to the poisoning by a chemical substance (a toxine) produced by the diphtheria bacillus in the throat and absorbed by the system from the throat.

"2. A certain degree of immunity, which is temporary only, is afforded by one attack of diphtheria, and this immunity is the result of an acquired tolerance to the 'toxine.' This applies to both animals and man.

"3. If large animals, such as horses, cows, goats, etc., are inoculated with minute but increasing quantities of the 'toxine' as derived from cultures of the diphtheria bacillus, they become gradually tolerant to its poisonous action, and will withstand the introduction of larger and larger

quantities through the immunity which is acquired from smaller doses.

"4. The immunity thus produced is the result of the development in the blood of some substance (anti-toxine) which has the power of neutralizing the poison (toxine) produced in diphtheria, and in animals which have been highly immunized (*i. e.*, capable of withstanding very large doses of the 'toxine' through repeated inoculations of doses minute but constantly increasing in size), the blood, even in small quantities, acquires the power of neutralizing very large, even fatal, quantities of the 'toxine.'

"5. When animals have been thus immunized, blood is withdrawn from the circulation in quantities varying with the size of the animal, and is employed through injections underneath the skin for the treatment of cases of diphtheria, and the anti-toxine thus introduced neutralizes the toxine absorbed into the circulation of the sick person from the throat. and thus renders him artificially insusceptible to its action.

"By this method it is apparently possible to protect persons from the contraction of diphtheria when they have been exposed to the disease and infected, if the symptoms have not yet appeared, and also to cure nearly 100 per cent. of cases where patients are treated in the early periods of the disease. Unfortunately, however, for the rapid and general use of this substance for the treatment of diphtheria, its production requires the constant surveillance of skilled and trained men. A comparatively long period, often four to six months, is necessary to render animals immune to the disease, so that their blood can be employed for the treatment, and finally, when thus rendered immune, they can furnish only sufficient blood, as a rule, to treat a comparatively small number of cases. Therefore, the production of the substance must necessarily be costly, and it can only be produced in sufficient quantities and be placed at the disposal of poor people by municipal and State sanitary authorities."

APPENDICITIS.

PROFESSOR WIGGINS, of Ottawa, Canada, not only does not believe in Darwin's theory of evolution, but does believe that animal life on this planet was originally caught up by some comet from Mars and landed on this earth. He says the reason we are not as wise as the Marsians is that the brain we have is too small and flabby for our intellect, probably, because when the germs of the human race were landed here by some passing comet we were reproduced from some other animal, and it will require many ages to recover our own brains; also that our brains are so taxed by our digestive system that there is but little chance for intellect. He thinks the old immortality in man is returning in his digestive system—that his alimentary canal is shortening every century. Nature has already folded up a section —the appendix—and before the middle of the next century there will be a law to compel parents to subject their children to a surgical operation, to remove what is not only perfectly useless, but a source of great danger. Many of our leading surgeons, while they do not commit themselves to Professor Wiggins' theory of the origin of the human race on this earth, are fully in accord with him, that every appendix should be removed in infancy, and that waiting until that procedure should become obligatory, the first indication of inflammatory action in that locality calls most imperatively for the knife. A few months ago, Dr. M. O. Terry, of Utica, one of the most accomplished and progressive of our modern school of surgeons, controverted this idea in a very logical article in the TIMES, claiming that the knife was seldom called for in this disease, the vast majority of cases being amenable to therapeutic treatment, starting from the premises that muscular tissue contracts under irritation, that an irritation continued leads to congestion, and that following this we have an inflammation, which may terminate in suppuration and the destruction of the appendix. He claims that the free use of oil, by mouth or enema, by its action either as an emulsion or in a more direct manner, relaxes the contractive fibres, thereby relieving the congestion, preventing suppuration and rendering in a majority of cases surgical procedure unnecessary. Dr. Terry quotes successful cases, to show that a theory worked to its logical conclusion by a careful observance of facts is a theory no longer, but a scientific truth based upon well proved results. It is an old adage, think before you strike, but modern surgery seem inclined to strike first and think afterward. The fad of removing ovaries and Fallopian tubes and wombs seems to be on the decline, and it is possible that the rage for removing the appendix may be equally short lived.

In a paper read before the American Institute of Homœopathy at its last session, Dr. Terry answered the many criticisms made upon his opinions, but there was very little

room for argument, as the objections were simply those of opinion, unsupported by fact. In closing his paper, Dr. Terry says: "The oil treatment is applicable to every symptom which leads eventually to appendicitis, including the inflammatory stage up to the suppurative, and I believe, if this rule of limitation be taken as a guide, the suppurative stage will seldom, if ever, be reached, and the surgeon's knife and the fear of the people in regard to appendicitis be a thing of the past." The oil treatment in jaundice and biliary calculi was first mentioned by Dr. E. E. Marcy, in his work on practice. It was difficult to determine, as it is with many other remedies, precisely how it acted, but more than one physician has attested its virtues in hepatic obstruction. A writer in a recent issue of the *University Medical Magazine* details two very interesting cases of relief by olive oil in obstructive jaundice. The first patient complained of sudden attacks of severe pain in the upper part of the abdomen, becoming more and more frequent and severe, and attended with vomiting and followed by jaundice. A tablespoonful of sweet oil was given in milk daily and gradually increased to six tablespoonfuls. With the exception of a slight attack of colic on the third day, there was no more pain, and a rapid recovery. The second case was a woman forty-eight years old, who had been jaundiced for ten months. The abdomen was retracted and the liver enlarged. She was very feeble, and the mind much depressed. Two tablespoonfuls of oil were given daily in warm milk. Within three weeks the jaundice disappeared and the stools became normal.

FACTS VS. THEORIES.

MR. HERBERT SPENCER has shown (*Popular Science News*) that all life is adjustment, and that the higher the form of life the better the adjustment.

Knowledge that does not improve adjustment must therefore be either not knowledge at all, or else worthless. Viewed from this standpoint every step of progress, mental or physical, is a step that enables mankind to adjust thoughts to things. In insanity we have extreme mal-adjustment. The mind and the outside world seriously fail to correspond with each other. In foolish deeds and thoughts the mal-adjustment is less serious. In wise conduct and intelligent thought the perfection of correspondence is at its maximum.

Here the brain-pictures and conceptions agree with things as perfectly as two parallel lines that maintain their relative distance through a multitude of curves and tortuous sinuosities. As perfect adjustment always means to human beings increase of comfort and diminution of vexatious occurrences, one would naturally think that the first prerequisite to such an adjustment would be sought for and maintained by every intelligent human being. The fact, however, is that the first and simplest adjustment is lost sight of continually by the majority. Few persons are able to keep cool and maintain their equilibrium when crossed in their opinions. Every opinion is a theory or an experience. If the latter, there is little likelihood of offence being taken when another denies it. We generally know that reasoning will not carry it into the mind of an antagonist. He, too, must experience it before he will believe it. Usually when offense is taken at the denial of a fact it is because we want that fact to sustain a theory. Since, then, the basis of contention is almost always some theory, why do human beings get angry at one another because of such disagreement? If our theory does not agree with things in the outside world, to adhere to it is to produce mal-adjustment for ourselves and others. If it does agree with things, then it is only a matter of time when others will agree with us regarding it. In the long run nature takes care of those who try to maintain false positions. The one safe and scientific course is to have the mind willing to consider every possible explanation of any series of facts. To prejudge any case, or to hold firmly to any form of judgment in the face of counter facts, is simply to be to that extent insane. The highest type of intelligence is the one that never dogmatically adheres to an opinion, and the one that constantly seeks to alter its opinions where it can discover facts to warrant the change. The mind that, self-poised, seeks to force stability, is the mind that is dangerous to its possessor. The mind that places no dependence on its own inherent powers of forcing stability, but that on the contrary deliberately and incessantly seeks to upset its own conclusions, is the mind that is surest to reach a truly stable condition, and the one that is the greatest blessing to its owner. This strange paradox has its parallel in the scriptural saying that "whosoever will save his life shall lose it." The world of facts outside the mind is supreme. To it the mind must bend. No one can look within the mind and find these facts. We must look outside for them, and we must direct our movements in correspondence with the things without rather than with the

thoughts within. Where the thoughts within agree with the things without there is safety. Where they do not there is danger. That they often fail to agree we know too well. When they so fail we do not discover the fact until it is too late, unless we are always and at every point suspicious of our own conclusions and carefully watching and correcting them.

SOME COMMON MISTAKES IN THE TREATMENT OF SYPHILIS.

DR. GEORGE H. FOX, the distinguished specialist and author in skin diseases and in syphilis, in a recent paper published in the *Journal of Cutaneous and Genito-Urinary Diseases*, contrasts what he considers dangerous fallacies which have long been believed by the public and physician in reference to syphilis. There is no doubt but syphilis should be closely watched and met at every development with appropriate treatment, but the general idea of the terrible and long continued power of the virus, lurking in the system for months, and even years, breaking out with terrific force when least expected, has unquestionably led, in some cases, to longer use of drugs, and in larger doses than was necessary, and to a neglect of other conditions so essential to the general health. "Many physicians," Dr. Fox said, "hold to the belief that syphilis is an incurable disease. On the contrary, the disease in every case tends to run a natural course and get well of itself. If a person suffering from syphilis inherits a sound constitution, and takes care of himself, the prognosis is extremely favorable, even though no treatment whatever is adopted. With the methods of treatment at our command, no disease furnishes such good results.

"Another common mistake arises from the belief that mercury and potassium iodide are practically the only remedies we have at our command in the treatment of syphilis. While they are both very potent remedies, yet complete reliance on them often causes serious injury to the patient. In anæmic patients iron should be regarded as an anti-syphilitic remedy. In strumous individuals, cod liver oil is very serviceable. The alleviation of mental anxiety and the adoption of hygienic rules are of the utmost importance in certain cases. The mistake is too frequently made that we treat the disease instead of the patient.

"Another fallacy is the belief that a certain definite period of time is required to effect a cure. Some say two years, others three, etc. The course of syphilis varies in different individuals, and the period of treatment must likewise vary, according to the severity of the case. One case of syphilis may require twice as much medicine as another, and the period over which treatment should be extended may be twice as long.

"Another common error is that many ills occurring in a syphilitic subject are treated as though they were of syphilitic origin. The fact that a patient has syphilis does not exempt him from non-specific disorders, yet the physician is very apt to jump to the conclusion that such disorders are the result of the syphilis, and to treat them accordingly. In many cases lesions on the tongue and oral mucous membrane in syphiiitics remain unaffected by specific treatment, and the fact should be borne in mind that similar lesions may occur in persons who have not had syphilis, as the result of digestive disturbance. Even if they are syphilitic, such lesions may persist in spite of specific remedies, unless the digestive errors are corrected."

A NEW GAS IN THE ATMOSPHERE.

AT the recent meeting of the British Association of Science at Oxford, says the *New York Tribune*, several most important scientific discoveries were announced, among the rest that of a new element in chemistry by Lord Rayleigh and Professor Ramsay. It has been only a short time since ozone was discovered by the re-arrangement of atoms of oxygen in the passing through it of a current of electricity, and now it is discovered that nitrogen is no longer an element but a compound. The experimenters found that nitrogen obtained from air has a different density from that of the same gas obtained from other sources. Then they treated what was supposed to be pure nitrogen from the atmosphere with magnesium. The nitrogen was absorbed, but the residue remained. This mysterious remainder was tested, and proved to be a dense and remarkably inert gas, twenty-one times heavier than hydrogen and 50 per cent. heavier than nitrogen. The spectrum was new, showing a single blue line, much more intense than the corresponding line in the nitrogen spectrum. If further experiments substantiate the claims of the discoverers, they will, without doubt, receive the prize of $10,000 of the Smithsonian Institute for the most important scientific discovery. Among the recent discoveries brought before the Association were those of the Prince of Monaco, during his deep sea dredg-

ing this summer in the Mediterranean and the Atlantic. He found at the depth of two miles, where it was supposed nothing could live, life was abundant. Several strange discoveries regarding prehistoric man were announced. The remains recently found in Switzerland show the existence in the Neolithic Age of a race of pygmies in Europe. Herr Mascha has unearthed within a few days in Moravia many remains of mammoths, and with them the skeletons of a whole human family almost gigantic in size. The discovery seems to settle the disputed point whether man was co-existent with the mammoth.

PIPERAZINE.

REPORTS of exceedingly interesting cases reach us through our exchanges of the prompt action of this comparatively new drug in troubles arising from a gouty or rheumatic diathesis. Dr. McKlintock, of Chicago, reports in the *New York Medical Journal* the prompt relief of some cases of nephritic colic incident to a gouty condition. In our hands the remedy has proved of the greatest advantage, in combination with the salicylate of soda. In summing up the properties of piperazine in the uric acid diathesis, gravel, calculi, etc., Dr. Stewart says: 1. Piperazine dissolves concretions, not only of uric acid, but also of phosphates, in consequence of its power of disintegrating the mucus or albuminoid cementing material which binds them together.

2. Piperazine relieves renal colic and other local pain associated with the formation of concretions in the urinary tract, owing to its power of dissolving the sharp edges of the calculi and thereby facilitating their maceration before they are entirely dissolved.

3. Piperazine is free from caustic or irritant action, does not render the urine alkaline, and is superior as a solvent of uric acid and urates to all other remedies.

ABORTIVE TREATMENT OF SYPHILIS.

SPECIALISTS in this disease are divided into two parties—those who would await the appearance of secondary symptoms before administering mercury ; and those others, equally numerous, who maintain that it is a mistake to lose precious time, during which the affection becomes confirmed. M. Julien (Soc. De Therapeutique), advocates the latter view ; according to him a syphilitic should be energetically mercurialized as soon as possible, so as to attack the poison vigorously by means of specific medication. No such effect is to be looked for from the internal exhibition of the old-fashioned preparations. M. Julien advises in their stead subcutaneous injections of calomel, as recommended by Scarenzio. During the first two months, he injects every fifteen days, ten centigrams of calomel triturated in one gram of liquid vaselin. Of course, the fluid must be well sterilized and all necessary antiseptic precautions taken. These injections are repeated, during the ensuing four months, at intervals of twenty, twenty-five, or thirty days, according to the gravity of the case and the intensity of the symptoms. After the sixth month he injects "gray oil" or a soluble mercurial preparation. Treatment *per os* may now be employed in addition. The injections should be made as close as possible to the seat of the primary lesion. M. Julien has observed that in patients with general syphilitic eruptions the latter disappear most rapidly in the vicinity of the point of injection. He is persuaded that by this method the disease can be aborted ; very frequently it obviates secondary symptoms, or at least diminishes and delays them in a very marked degree.

HEALTH A DUTY.

SAYS Herbert Spencer : Perhaps nothing will so much hasten the time when body and mind will both be adequately cared for, as a diffusion of the belief that the preservation of health is a duty. Few seem conscious that there is such a thing as physical morality.

Men's habitual words and acts imply that they are at liberty to treat their bodies as they please. Disorder entailed by disobedience to nature's dictates they regard as grievances, not as the effecst of a conduct more or less flagitious. Though the evil consequences inflicted on their descendants and on future generations are often as great as those caused by crime, they do not think themselves in any degree criminal.

It is true that in the case of drunkenness, the viciousness of a bodily transgression is recognized; but none appear to infer that if this bodily transgression is vicious, so, too, is every bodily transgression. The fact is, all breaches of the law of health are physical sins.

When this is generally seen, then, and perhaps not till then, will the physical training of the young receive all the attention it deserves.

A NEW invention called the thermogen is now being tried in several of the English hospitals with marked success. The object is to sustain the heat at a uniform temperature when artificial means are required, and of course its use would be limited to hospitals or institutions where the necessary facilities are easily obtainable. The thermogen consists of a light quilt containing a coil of wire bent in the form of a gridiron, inclosed in insulating and non-conducting material, and embedded in cotton, wool or other soft substance, with a silk or woolen covering. The heat is produced by the resistance of the coil to the flow through it of the electric current. A uniform temperature of about 150° can be maintained for any length of time, the heat being prevented from going above that by the melting of a fuse which instantly shuts off the current. In those houses lighted by electricity the quilt can be connected with the ordinary incandescent terminals, but the principal use of the quilt would be confined mostly to hospitals, during lengthened operations, or in those attended with hemorrhage.

CASES are by no means rare where slight hemorrhage, or something resembling menstrual flux, occurs at the time for the regular catamenial period for the first two months of pregnancy, and in some cases extends during the extire period. This condition does not necessarily indicate placenta previa, for where that exists Playfair says the hemorrhage rarely begins before the end of the sixth month, and sometimes not till labor has commenced. Depaul, in seventy cases, says in one case only the hemorrhage occurred before the sixth month ; in seven from six to seven months ; in twelve from seven to eight months ; in twenty-six from eight to nine months ; and in twenty-four at term or near. A month before actual labor it is not unusual for slight pains, resembling labor pains, to occur at regular intervals, even with the slight appearance of blood. Of course, in these cases the strictest rest should be enjoined, and, if necessary, some remedy used to check the pain.

AN interesting study recently appeared in one of the magazines, comparing the microscopic character of the eye of some of the higher order of birds, especially the eagle, and also of some of the lower insects, with the human eye, but the sensitiveness of the photographic plate and the duration of the impressions far exceed that of the most powerful lens and sensitive retina in the animal world. The human retina can only retain an impression one-seventh of a second, but the feeblest light that falls upon the sensitive plate is stored up. What cannot be seen with the eye at a glance will not reveal itself through the gaze of an hour; whereas, the chemical action on the plate at the end of an hour will be 3,600 times what it was at an end of a second. No wonder in view of these facts Herschell called the photographic plate "the retina that never forgets." For nothing is lost, but by a process of enlargement, impressions left on the plate by vibrations as rapid as 40,000 billions per second can be made visible to our sight. As by the union of the microscope and the spectroscope the elements of planets and star dust have been verified, so, at no distant day, through the combination of the telescope and the photograph plate may we not hope that life, as it exits in the planets, will be clearly manifest to us ?

DR. SANDBERG, United States Consul at Bagdad, shows in the *Medical News* that the use of animal extracts as curatives in the affections of corresponding organs in men is by no means original with Brown-Sequard or Dr. Hammond, but is evidently of Eastern origin, where for centuries children's hearts have been considered a specific in heart disease and carcinoma. The improvement consists in the process of extracting the curative virtues of the organs, and the manner of administration.

THE juice of cranberries has long been a favorite application in erysipelas, and, mixed with gin, as a diuretic; Dr. Goranski, of Russia, finds that, given freely, pure, or diluted with an equal part of water, it is an excellent means of relieving thirst and vomiting in Asiatic cholera. The author's observation extends to fifty cases where the vomiting and nausea was controlled, in some of the cases the usual remedies, ice and narcotics, having failed to make any impression. The doctor thinks that the juice has a powerfully destructive action on the cholera vibrio.

SEVERAL months ago a very interesting article appeared in the TIMES, by Miss Rowe, of Camillus, New York, on the training of children with defective mental development. Miss Rowe has established a school in her own house, where the pupils can have all the comforts of a home. Her success has been remarkable, and shows how much can be accomplished in those cases, once considered hopeless, when under proper guidance. The terms are much more moderate than those of most specialists.

MR. LESTER WARD gleans for the *Monist* some interesting facts from the American Census Office of the conjugal statistics for 1890. Between the ages of twenty and twenty-five, about fifty-three per cent. of women are without husbands; between twenty-five and thirty, about twenty-eight per cent., and between thirty and forty, about twenty per cent. After this, the number of widows increase so rapidly that from forty-five to fifty-five the unmarried amount to twenty-six per cent.; and of women over sixty-five, but little over twenty-six per cent. have husbands. Nearly six per cent. of all women never marry.

HIGH FREQUENCY CURRENTS IN ELECTRIC THERAPEUTICS.—In a late number of the *Electro-Therapeutic Gazette*, Dr. J. W. Morton, of New York, describes some interesting experiments made by him in electro-therapeutics, in which high frequency currents were used. He found that the cutaneous vessels were dilated, and the circulation and secretions affected, by local or general applications. In many cases there was a lowering of the pulse from fifteen to twenty beats, and an increase in body temperature from half a degree to a degree. In chronic articular rheumatism the urea was increased and the uric acid diminished. One patient gained in weight forty-two pounds in five weeks under this treatment.

THANKS to the recent scare about the introduction of pestilential diseases from foreign countries, the immigrants are so carefully watched by United States government officers at the points of departure, and our ports so closely guarded by intelligent sanitary officers, that there is but little danger of our receiving a visit from the pestilential diseases now raging abroad. In Canton the plague is still unabated, the mortality being ninety per cent. of all attacked, and the number of deaths for the three months ending July 1st 40,000. The cholera is raging in nearly all the provinces of Russia, and exists to a less extent in most of the large cities of Holland and in some of the towns of eastern Prussia.

PROFESSOR KOCH announces the discovery of antitoxine as a prophylactic in diphtheria. It remains to be seen what the result may be, but the Board of Health, after careful investigation by Dr. Briggs of the department, has adopted it for careful trial.

BIBLIOGRAPHICAL.

THE *American Journal of Insanity*, for many years edited with great ability by Dr. G. Alder Blumer, the accomplished Superintendent of the Utica Insane Hospital, has passed into the hands of the American Medico Physiological Association, with Dr. Richard Dewey in immediate editorial charge. The publication office will for the present be removed to Chicago.

A TREATISE ON DIPHTHERIA. By Dr. H. Bourges. Translated by E. P. Hurd, M.D., 1894. George S. Davis. Physicians' Leisure Library, 25 cents.

This treatise covers the whole ground of diphtheria up to the discovery of Koch. It is full of scientific facts and is the best work of the kind yet published.

WHERE TO SEND PATIENTS ABROAD FOR WATER CURES AND CLIMATIC TREATMENT. By Dr. Thomas Linn. The Physician's Leisure Library Series. Geo. S. Davis, publisher.

The author is resident physician at a European mineral water station in summer and at a popular climatic resort in winter, and gives in this brochure correct information of the various European resorts and their value in different forms of disease, for ready reference to physicians.

A SYSTEM OF GENITO-URINARY DISEASES, SYPHILOLOGY AND DERMATOLOGY. By Various Authors. Edited by Prince A. Morrow, A.M., M.D. With Illustrations. In Three Volumes. Vol. III., Dermatology. D. Appleton & Co. 1894.

The advances made within the past few years in the study of diseases treated in these volumes has rendered text-books of twenty years ago almost obsolete. In the department of dermatology alone no fewer than forty diseases, fully discussed in this volume, are recognized now as distinct clinical entities which were unknown as distinct diseases twenty years ago. The work of the chemist, more especially in the coal tar preparations and the minute study of germ life and nervous pathology, has cast a flood of light upon the treatment and cause of an almost infinite variety of skin affections. The publication of this voluminous work is timely, giving to the profession the most advanced thought of the most careful investigators upon the subjects discussed. The typography and illustrations are of a character seldom seen in text books.

"ONE HUNDRED YEARS OF BUSINESS LIFE." The great house of W. H. Schieffelin & Co., on the one hundredth anniversary of the founding of a house which is known throughout the medical world for its enterprise, not only in trade, but in science, has sent to its hosts of friends a *brochure* detailing many incidents connected with their ever growing business and National history during the one hundred years since its commencement in 1794. In 1894 the descendants of Jacob Schieffelin still continue the business established by their ancestor one hundred years ago. The house has not only been immensely successful in its own direct business, but has also served as a kind of college, from whose laboratories a large number of well-instructed men have gone into every part of the country, enriching with their business habits and scientific methods the vast field of pharmacy. It has been but little more than three-quarters of a century since the first college of pharmacy was established, more than twenty of which are now scattered over the country, at which over thirty thousand students have graduated. Those of us who can look back from a quarter to half a century of professional work can form some idea of the immense debt of gratitude due to the chemist and the pharmacist for their labors in the field of medical progress—a field which every year is showing more and more the fruits of scientific culture.

MACROBIOTIC; OR, OUR DISEASES AND OUR REMEDIES. FOR PRACTICAL PHYSICIANS AND PEOPLE OF CULTURE. By Julius Hensel, Physiological Chemist. Translated by Prof. Louis D. Tafel, of Urbana University, O. Philadelphia: Boericke & Taffel, publishers, 1894.

The author ascribes the origin of internal diseases to a *diminished electric force.* The cause of this diminution of electric force may be found either in respiration of oxygen insufficient in itself, or in the more difficult absorption of the quantity of oxygen required for the prosecution of our vital functions, owing to the diminished number of red blood corpuscles, or in strong emotion of the mind, or in atmospheric influences, or in the reduction of the nervous tension in special regions of the body, owing to a partial check in the circulation of the blood. The great cause of this condition the author thinks to be owing to the daily loss of blood salts, such as sulphur, lime and iron, in excess of what is taken in the food. The author thinks a vegetarian diet more conducive to health, if it is well selected, because it is richer in mineral elements than a meat diet, but even then the blood may require enriching by more iron, lime and sulphur than is contained in the food. Arguing from these premises, the author furnishes an explanation of the chemical processes taking place in certain pathological conditions and furnishes suggestions for treatment. The work is evidently the outcome of a close and original thinker, and whatever may be the opinion of scientists on it as a whole, it certainly is rich in suggestions of great practical value.

LE SYSTEME NERVEUX DE L'HOMME. Leçons Professées a l'Université de Louvain par A. Van Gehuchten, Professeur Ordinaire à la Faculté de Médecine, Directeur de l'Institut Vesale. 707 pp. A. Uystpruyst-Dieudonné, Publisher, Louvain, Belgium. 1893. (Illustrated.)

In a well illustrated work the writer presents the anatomy, both macroscopic and microscopic, of the nervous system. In it there are offered a large number of the many facts which have been added to our knowledge of this subject in recent years. For six years he has employed the methods of Golgi and Ehrlich in his studies of the structure of the central and peripheral nervous system. Hence there is incorporated a great deal of personal experience and original work. The outline is as follows: The first lectures are devoted to the macroscopic examination of the gross anatomy of the cerebro-spinal axis. Then follows the internal structure of the central nervous system. The histology of these parts is reviewed in two lectures, which are among the most complete and interesting of the work. He then studies successively and separately the internal structure, by means of transverse sections; the arterial and venous circulation, calling especial attention to the nutritive arteries and the peripheral nerves coursing from all portions of the nerve-axis. Finally, the terminal lectures are consecrated to a general view of the structure of the cerebro-spinal axis, with examination of the various nerves from their origin to their termination. These latter features are of especial importance in the pathology of the nervous system. The reflexes and their paths are touched upon, while the sympathetic nervous system comes in for full consideration.

The work is clearly and concisely written. The text is filled with numerous and well designed cuts, which serve to explain the various points, and have the advantage of being original. Though written for the use of students, it might be read with advantage by practitioners who desire to be abreast with the times on the additions to our knowledge of the nervous system. F. H. P.

Guaiacol has been found an admirable remedy in aborting tonsillitis before suppuration. It is applied pure with a brush or absorbent cotton.

SOCIETY REPORTS.

REPORT OF FRENCH SCIENTIFIC SOCIETIES.

MEDICAL SOCIETY OF THE HOSPITALS.

President, M. Ferreau.

The Bacteriology of Peri-Uterine Suppuration.—M. Hartmann, in the name of M. Morax, presented some views upon the above subject. In all the cases of catarrhal or parenchymatous salpingitis, and of hydro-salpingitis, he found no microbes. In three cases of tubal pregnancy with hemosalpinx, and in two retro-uterine hematoceles, the same result occured. Two cases of suppuration of the broad ligaments showed the presence of streptococci. Thirty-three times the purulent collections proceeded from the annex. In thirteen cases the pus was sterile, and in thirteen it contained gonococci, pure in twelve, and once associated with the bacterium coli. In this last case, the rectum was indurated, and the collection seemed to be on the point of evacuation. Four times the pus contained streptococci; once it was pure, and once associated with the bacterium coli and a small undetermined bacillus, and in one case there was the bacterium coli, another small bacillus, and a bacillus of annulated form. Twice there were collections of pneumococci, and of the bacterium coli. The case of sterile pus was an ovaritis, the histological examination of which showed it to be tuberculous. The others were old lesions, most frequently of gonorrhœal origin. The cases of salpingitis that exhibited gonococci, were nearly all of women who had recent pelvi-peritonitis, and there was often a greenish yellow discharge from the vulva. The influence of anterior pregnancy upon the development of blenrrorhagic salpingitis, was evident. Salpingitis with streptocci, succeeded, almost immediately, to traumatic lesions of the body of the uterus, abortion, the dilatation of uterine fibroma, etc. As respects the salpingitis with pneumococci or the bacterium coli, the antecedent condition of the patient did not allow of any etiological hypothesis. From a therapeutic point of view. and despite the opinion of Schanta and Wertheim, the examination of the pus had no utility. The determination of the microbic nature of salpingitis, would suggest to the surgeon to institute the drain, or abstain from this precaution.

M. Richardiere presented a patient affected with brown pigmentation of the skin from the use of arsenic. This appearance occurred at the end of twenty-five days, during which the patient had taken about 500 drops of Fowler's solution and had received twelve intra-ganglionic injections of three drops each. The general pigmentation of the skin respected the mucous membrane, but affected the hair and nails. M. Rendu asked if the arsenic was the only cause of the trouble, and if it might not be due to tuberculization of the suprarenal capsules. It would be advisable in all cases to watch attentively the evolution of the disease before pronouncing upon it.

M. Thibierge presented a case of neuropathic pseudo-elephantiasis. The patient was hysterical, and was attacked in January, 1893, by a progressive ascending œdema of the left arm, with no cutaneous alteration nor collateral circulation. The only hysterical symptom was a pharyngeal anæsthesia. The neuralgia which ordinarily accompanies this affection was wanting.

M. Gilles de la Tourette: I would ask why M. Thibierge calls the case which he has presented a "neuropathic pseudo-elephantiasis," which is nothing more than hysterical œdema in a hysterical woman. Hysterical œdema is not always blue, as he seems to suppose. Sydenham, who first described the disease, did mark the discoloration especially.

M. Thibierge was astonished that the finger left no impression. This very peculiarity was noted by Sydenham as characteristic of hysterical œdema. Why complicate matters and treat as neuropathic an œdema occurring in a hysterical woman, and which eliminates the influence

of other organic lesions? Logic should have its application in medicine as in all other sciences.

M. Mathieu: It is possible that this œdema was hysterical in its nature, but it seems difficult to establish a limit between hysterical and arthritic œdema, which is neuropathic also. The most important point is the clinical and peculiar aspect of the pseudo-elephantiasis.

M. Galliard related a case of thrombosis of the femoral vein, with humid gangrene of the left foot, supervening upon cancer of the pylorus. The patient was a woman, and extremely cachectic.

Pyohemia Due to an Old Osteomyelitis.—M. Netter presented the following case: A woman of twenty-six years entered the hospital with a violent fever, temperature 40°, intense delirium and difficult articulation, anchylosis of the left coxo-femoral articulation, a peri-anal abscess, with abundant discharge of sanious pus, also albuminaria in great quantity. The diagnosis was acute miliary tuberculosis, with meningitis. Patient having succumbed at the end of forty-eight hours, the autopsy showed pyohemia following an old osteomyelitis. The pus, blood of the two ventricles, and fluids of the spleen contained the staphylococcus pyogenes albus. The osteomyelitis had continued for twelve years, and the patient had had several relapses, proving the persistence in the bony disease of the presence of the staphylococcus, and the possibility, after a long interval, of a revival of its virulence.

M. Pierre Marie exhibited a woman of forty-two years affected with myxœdema, and cured by ingestion of the thyroid gland of the sheep.

M. Netter related a case of grave pulmonary infection following external injury. A young man of nineteen years received a slight injury to the left leg while coursing upon a velocipede. Fever ensued, with enlarged spleen, pulmonary congestion, and cardiac souffle. He was completely cured, with the exception of the valvular lesion, which persisted. An examination of the blood, expectoration, and the pus of the wound of the leg, showed that there was a general infection by the pneumococcus. The remarkable fact in this case was that the invasion occurred by the integument.

THERAPEUTIC SOCIETY.

President, M. Adrian.

Poisoning by Salol.—M. Josias reported the case of a young girl of eighteen years affected with angina, in whom the administration of three grains of salol produced a pruriginous eruption, and black urine containing salicylic and phenic acids. MM. Cartaz, Morel, Lavallée, and d'Aurignac had previously cited instances of the ill effects following the external applications of salol by pomades, blowing it into the ear, etc. M. Desjardin Beaumetz was of the opinion that the accidents mentioned by M. Josias were very rare, and that in such cases there was a probable urinary insufficiency. He frequently substituted benzonaphthol for salol, as suggested by Berlioz; but in order to secure good effects from benzonaphthol, it should be given in doses of 4 or 5 grammes. In his opinion salol was the best intestinal antiseptic, as it does not decompose in the stomach, and its action in the alkaline intestines was slow and effective. M. Bardet inquired if a febrile condition of the patients had not been the cause of the effects observed. It was well known that fevers produced a greater sensitiveness to aromatics than when they were absent. M. Patien also thought that accidents were rare; that the presence of salicylic and phenic acids in the urine should not be considered as a sign of poisoning or intoxication. Wounds dressed with salol absorbed the drug, by reason of the alkalinity of the blood, and it is not necessary that suppuration should occur to produce that effect.

M. Vigier made a favorable report of the good results obtained from diiodoform in the surgical service of M. Richelot. In support of this, M. Bardet gave a personal experience, in which the substitution of diiodoform for iodoform effected a much more rapid cicatrization than could be obtained from the latter.

OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY OF PARIS.

Epilepsy and Eclampsia.—M. Porak, in the name of M. Paquy, read a paper upon epilepsy during pregnancy. M. Paquy insisted upon the difficulty of making a differential diagnosis between epilepsy and eclampsia. M. Charpentier desired to know the influence of pregnancy upon epilepsy, and *vice versa*. He had had the opportunity to carry a woman safely through her first pregnancy, and deliver her of a living child. During the fourth month of a second pregnancy she became subject to epileptic attacks, resulting in meningo-encephalitis and death without delivery. M. Porak replied that it was difficult to establish a differential diagnosis between epilepsy and eclampsia, and also the influence exercised by pregnancy. In certain patients there was an amelioration, while in others there was frequently a tendency to aggravation.

ACADEMY OF MEDICINE.

President, M. Rochard.

Laryngo-Tracheal Prothesis.—M. Péan presented a patient in whom in an operation for the recurrence of a tumor of the thyroid body, it was necessary to remove the cricoid cartilage and five rings of the trachea. For sixteen months there has been no return of the disease. As the extent of the tracheal wound caused complete aphonia, an artificial apparatus was constructed by M. Kraus. As a result, the patient can speak sufficiently well to be understood.

On Typhoid Fever.—M. Bucquoy showed that the origin of the epidemic in Paris was due to that which occurred at Rigny-le-Ferron in 1893. Many incontestible cases occurred in this locality at the beginning of the year. It is probable that the germs disseminated in the soil remained stationary for a long time, thanks to the exceptional dryness. But the pouring rains at the end of January, 1894, forced them into the drainage water which mingled with the waters of Vanne. Soon after, the typhoid fever appeared simultaneously at Sens and at Paris. This fact clearly shows the danger of the arrival of drainage water in the course of the Vanne. M. Bucquoy suggested that there should be a complete suppression of the mingling of the waters, and meanwhile a bacteriological examination of the drainage water.

Radical Cures of Umbilical Hernia.—M. J. Boeckel, of Strasbourg, performed this operation fifteen times—ten for hernia not strangulated, five for strangulated. In two operations, without suture of the ring, there was a recurrence in one. In six operations by the method of M. Championniere—suture of the ring—there were five cures and one recurrence. In three operations by the process of M. Le Dentu—omphalectomy—all were cured. This last is the chosen method. The mortality—only 1.3 per cent. in non-strangulated hernia—was increased to 28.1 per cent. in the strangulated. The indication, then, is to effect the cure before strangulation, no matter how large the hernia, or the age. Patients of sixty-nine, seventy-four, seventy-five and eighty-one years were successfully cured. Small and medium sized hernia gave excellent results and the largest were much modified.

Neoplasm of the Pylorus. Cylindrical Resection of the Stomach.—In the case of a woman of fifty years, who presented the signs of pyloric stenosis, but without hematemesis, and with a movable tumor, and no glandular enlargements, M. Tuffier operated, intending to perform a pylorectomy. Finding a neoplasm near the pylorus, and occupying the great curvature and the two faces, he removed a segment of the stomach measuring four centimetres of the lesser curvature, and nine of the greater. The suture of the two lips of the wound was reinforced by the epiploon. For two days, alimentation exclusively by the rectum. For fifteen days, milk regimen in very minute quantity, one tablespoonful every two hours. After seven and a half months there was no appearance of a return of the disease. Has had no vomiting, digests well, weight much increased. The ulcerated tumor, occupying the center of the segment resected, was examined by M. Malassy, and proved to be a typical colloid epithelioma.

Pylorectomy, with Previous Enterogastrotomy.— M. Quénn made an exploratory laparotomy in a woman of thirty-three years, who for six months showed symptoms of gastric cancer. Fifteen days after, the radical operation was performed. There was a cancer of the pylorus, with an invasion of the first portion of the duodenum and glandular enlargement. He began by uniting the anterior face of the stomach with the jejunum. Then, incising the stomach, he removed the pylorus, with all the portion of the duodenum involved, The gastric and duodenal incisions were firmly closed. The operation, although lasting nearly two hours, was followed by very slight consequences, and the patient got up on the fourteenth day. In two months and a half her weight was much increased, digestion good, and strength returned. Bacteriological examination of the tumor showed that it was carcinoma.

Gangrene From Neuritis.—M. Piedrache reported the case of a patient of twenty-two years with gangrene of the great toe, attended with excruciating suffering, and atrophy of the whole limb. He amputated the limb high up. Arterial pulsation had completely disappeared from the tibio-tarsal region, and the entire foot. Cure, complete, cessation of all pain, general condition improved. The nerves of the amputated limb were large and knotted, and there was perineuritis.

Cholecystotomy, With Removal of Obstruction of the Biliary Passages by Injections of Ether.—M. Fontan, after a cholecystotomy performed for hepatic colic, could not, by catheterism, re-establish the permeability of the biliary passages, which were choked by calculi. He sutured the open vesicle to the abdominal wall, and when the adhesions were solid he again tried catheterism, preceding it by an injection of a few drops of ether. At every injection the progress of the sound was manifest. Finally, after a last injection of two centimeters cubes, the patient was taken with nausea and the eructation of ether. During the night there was a discharge of pure bile. and the icterus and emaciation gradually disappeared. The ether injections were almost painless and well borne. Their solvent action upon the calculi was rapid and efficient.

Calculous Aneuria.—M. Leguen performed nephrotomy upon a patient who, for five days, had had complete aneuria, preceded by hematuria. and great tenderness in the renal region. Three small calculi were extracted from the pelvis of the kidney, and one that had lodged in the ureter was drawn out and extracted. The canal of the ureter having been cleared, the renal wound was sutured, without drainage, and also that of the lumbar wound. Cure complete, and without accident. Uninterrupted catheterism of the ureter is indispensable, to insure its complete freedom from obstruction before suturing the renal wound.

Prophylaxis of Influenza.—M. Roussy gave a personal experience. He is subject to influenza whenever he breathes the air of a chamber in which is a patient suffering that trouble, and escapes it, by taking, before exposure to the contagion, small doses of quinine and creosote.

Albumino-Mineral Injections in Tuberculosis.—M. Gaube, of Gero, uses injections, in tuberculosis, of albuminoids of chlorine, lime, magnesia, phosphorus, and iodine, thus at once restoring to the organism the albuminoid and mineral substances which it needs.

BIOLOGICAL SOCIETY.

President, M. Chauveau.

Syphilis as a Cause of Degeneracy.—The malformations observed in hereditary syphilis are entirely similar to those seen in teratology. M. Féré tried the effect of pyocyanic toxine upon the development of monstrosities in the embryo of the chicken, and obtained fifty-eight, thirty-three per cent. of malformation in the eggs experimented upon. This was a degree of toxicity nearly the same as that produced from profound alcoholism.

M. d'Arsonval communicated an observation of prostration by alternating currents. In these cases, generally, death is only apparent, and the subject may be reanimated by artificial respiration. This is shown by experiments upon animals. A laborer was struck by a power of five thousand volts. He was subjected to artificial respiration with lingual traction, and restored in a few minutes. He remained in the hospital because of the burns received by the accident.

M. Laborde recalled two cases of electric prostration, in which artificial respiration did not succeed in restoring the patients, although rhythmic tractions of the tongue were also employed.

MM. Renon and Barr investigated three cases of puerperal eclampsia from a microbiological point of view. In one of them the liver contained streptococci, in the other two the result of the examination was negative. In all three cases the toxicity of the blood was considerable.

M. Charles Richet explored the causes of the formation of urea in the liver. By drawing the liver from the body, and washing it, he determined that at first it contained very little urea. At the end of a few hours the production of urea was augmented, despite the defective vital conditions of the organ. M. Chauveau asked if M. Richet thought that it was the albuminoids of the cells that were directly transformed into urea, to which M. Richet replied affirmatively. M. Chauveau admitted, on the contrary, that a product, more or less oxidated, could be found in the liver, which would be to the urea what urine is to the liver. M. Dastre remarked that in the experiment of the washed liver there existed a certain correlation between the formation of glucose and that of glycogenesis.

M. Legroux tried the treatment of saturnism by the sulphuret of sodium. The lead colics were very quickly relieved, and the elimination of the lead was rapidly effected. As respects the diagnosis, this agent is important, for it causes the lead to appear in the urine.

M. Gréhaut showed the results of researches upon the oxide of carbon, based upon the examination of the blood of an animal confined in a close room, the air of which he wished to analyze. The process is extremely delicate, and enables one to determine the centessimal composition of a toxic gas in the air of a chamber.

M. Coutejean: In an experiment upon a frog, whose head had been crushed, strychnine injected into the veins did or did not act, accordingly as the vertebral artery was or was not preserved. When it was preserved, with its anastomoses, the poison acted, but did not when it was destroyed. M. Roger remarked that in consequence of the shock upon the head, the blood was arrested in the capillaries, and, consequently, the action of the strychnine was mechanically arrested.

Upon Mountain Sickness.—M. Regnard, in his mountain ascensions, observed that the guides are never sick. It is only those who are unaccustomed to it, and without training, who suffer. He explains this by the true nature of the mountain sickness, which is a veritable asphyxia due to two causes—fatigue, which uses up the oxygen, and the diminution of oxygen because of the high altitude. The aeronaut is not fatigued and is not exposed to the malady except at a very great height. By submitting two guinea-pigs to the rarefaction of the air—one of them was turned upon a wheel—M. Regnard obtained experimental proof of the influence of fatigue.

MM. d'Arsonval and Charrin have investigated the action of carbonic acid under pressure upon different living objects. In trying upon cultures of the pyocyanic bacillus different gases at an equal pressure, they observed that the effects varied according to the gases used, especially in the carbonic acid, as respects the destruction of bacilli. It follows that the pressure does not act as a mechanical agent, but by exalting the chemical power of the gas.

M. Féré reported a case of hysterical cutaneous gangrene, which presents a very peculiar characteristic. The patient had been under treatment for round ulcer of the stomach, and M. Féré asked if the lesion of the stomach and that of the skin did not depend upon the same nervous phenomena.

MM. Carnot and Charrin endeavored to produce lesions of the pancreas by the injection of different mi-

crobes into the canal of Wirsung. A dog, over seven years old, injected with the pyocyanic bacillus, showed glycosuria, a fact the more remarkable, as the pyocyanic infection diminishes sugar in the blood. Certain forms of diabetes, then, may owe their origin to microbic causes. M. Pilliet remarked that these experiments confirmed the clinical results. The pancreatic diabetes of M. Lancereaux is most frequently due, not to the destruction of the pancreas by cancer, but to calculous inflammation, or the suppuration of the pancreatic excretory passages.

M. Gaube found lime and magnesia in the urine of the tuberculous or those predisposed to tubercle, and detected the excessive elimination of these bodies in the urine. This, then, is a prominent diagnostic sign, to which it is well to draw attention. M. Peyron made a communication to prove that inhalations of ozone augmented the secretion of urea. M. Dastre presented a paper by M. Morat upon the nerves of the pancreas, which regarded some of them as nerves of secretion, others as inhibitory, with a predominance of the former.

Mr. Langlois has investigated the effect of sparteine, when associated with chloroform in chloroformic anæsthesia. The sparteine permits the prolonged action of chloroform and prevents cardiac affections. M. Laborde remarked upon the great importance of M. Langlois' communication, for it is known, from physiological researches, that sparteine increases the energy of the heart, and consequently diminishes the risk of syncope.

Compound Sclerosis.—M. Dejerine presented a patient of forty-nine years, affected with tabes and paraplegia. The autopsy disclosed in the posterior columns, lesions of a lobe, slightly advanced. There existed besides, marked sclerosis of the lateral columns. The remaining white bundles were entirely healthy. The sclerosis increased from above downwards, which negatives the hypothesis of a descending lesion. In this case there was, then, a combined sclerosis.

M. Laborde offered an anæsthetic combination of ether and chloroform. This preparation, with the permanganate of potash, produced gentle sleep in the dog, hare and guinea pig, all of which are very sensitive to chloroform. With the tetrachloride of carbon, which is anæsthetic, but whose vapors are caustic and irritating, good results may be obtained, when the product is pure, and reflex excitability avoided. The animal acts as though decapitated.

MM. Souques and Marinesco reported an observation of ascending degeneracy of the spinal marrow, in consequence of the pressure of a hydatid cyst in the tail of a horse. It also attacked the gray substance, and especially the column of Clark.

According to MM. Wurtz and Tchegoleff, in relation to the influence of laparotomy in tubercular peritonitis, it is useful in cases of recent inoculation.

MM. Duclerc and Charrin have proved that lactic acid, mercury, and lead, facilitate the passage of microbes through the placenta.

M. Carnot exhibited specimens taken from animals slowly poisoned with mineral products, or soluble dextosemes, and established the fact that the poison revealed by the chemical reaction was particularly found in the weak and diseased portions of the organism. It may be asked if the medical agents have not a special election for the tissues by virtue of the same principle?

M. Charrin offered an opinion of M. Cadiac upon the transmission of tuberculosis by the digestive passages.

M. Gilbert investigated the action of the bicarbonate of soda in hypopepsia. This salt destroys the process of digestion, when administered just before eating. On the contrary, when given an hour before, it assists the chemical operation; given in chemical doses, it diminishes hypopepsia.

SURGICAL SOCIETY.

President, M. Lucas-Championnière.

Anæsthesia by Bromide of Ethyl.—M. Ségond: I have recently employed the bromide of ethyl, as used in the service of M. Terrier, following exactly the operative process of this surgeon of Bichat, and his pupils. The bromide of ethyl was as pure as possible, the horizontal decubitus, massive doses of the anæsthetic in all cases, face anointed with vaseline to prevent burning. Have utilized this substance in 443 cases, of which only fifty-two were for operations of short duration, such as anal fistulæ, etc., and have never experienced the least trouble. In 391 cases, I have given at the beginning a massive dose of the bromide of ethyl; afterwards, as soon as insensibility was effected, substituted chloroform, administered in small and continued applications. Have made 105 vaginal hysterectomies, thirty amputations, fifty-two grave laparotomies, eighteen radical cases of hernia, etc., operations which have often lasted two and even three hours, and performed upon the old and hysterical. In other words, have not selected the patients. I have never seen any accidents during the employment of the bromide of ethyl. Have found the vomiting to be less frequent, and also the agitation of the patient. I have been struck with the harmlessness of this mode of anæsthesia, with the extreme rapidity with which complete insensibility has been obtained—not requiring more than a minute—and have decided that in this way less chloroform is necessary than by its continuous employment when used alone.

M. Bazy: I have used the same process at Bicêtre and must give it my approval. In a case of dilatation of the anus, however, there was vomiting. In another case I was interrupted in giving the inhalation, by violent coughing, which threatened suffocation.

M. Monod: Although I have found this process most excellent, I am constrained to say, that, at the beginning of the anæsthesia, the patients are painfully oppressed by the odor of the bromide of ethyl, particularly when attended with symptoms of suffocation. As far as I am personally concerned, I prefer chloroform alone.

M. Berger: I have frequently observed the inconvenience of the use of bromide of ethyl, and the repulsion of patients to it. In my experience, vomiting is nearly as frequent as with chloroform, and I have, moreover, found that the mixed anæsthetic process was a complicated one, and prefer the simple methods. Since the employment of chloroform pure, I have had much less trouble. Anæsthesia is a thing that should be learned and well understood. Those who know how to give chloroform rarely have accidents.

M. Quéne: It is hardly necessary to say that chloroform pure, kills, and fear plays a considerable part of the danger. Hence, it is important to have special apartments for anæthesia, in order to diminish the emotions of patients, and not frighten them before operating, by the sight of instruments.

M. Lucas-Championniére: I have used the bromide of ethyl, but have abandoned it. The researches of M. Poiton-Duplessis on this subject should not be forgotten. If the results indicated by M. Ségond are good, it may be remarked, that they are due to the skill of those who employ this mixed process.

M. Ségond: When the bromide of ethyl is administered in a certain way, say by the inhalation of a few drops of the anæsthetic for one or two seconds, the particular odor of this substance affects patients much less. A bronchial irritation, even though it be chronic, is not a counter indication to the use of this form of anæsthetic, and I insist upon the advantages which I have already proposed.

Formation of Urea in the Liver after Death.—M. Ch. Richet: M. Bernard has demonstrated that the formation of sugar by hepatic glycogenesis was continued for many hours in the liver removed from the body and deprived of its blood by washing. The same occurs as respects urea. Physiology and pathology both teach us that the liver is one of the principal formative organs of urea. After death, when the vitality of the hepatic cells is not destroyed, the liver continues to make urea and sugar at the same time. A series of innumerable experiments has established the fact that the liver not only makes urea after death, but that this ureopoietic action is

due to a soluble ferment. There then exists a remarkable analogy between the formation of sugar in the liver, and the formation of urea. The two phenomena are produced by means of a soluble diastasis.

Apparent Death by Alternating Currents—Restoration by Artificial Respiration.—M. D'Arsonval: Electricity often causes seeming death by the arrest of respiration and by syncope. This happens frequently in the application of electrocution. It is the same that is produced when a man comes in contact with wires traversed by a current at a high tension, and the passage of the current through his body. Hence, it is possible to restore life by artificial respiration by usual methods, and also by rhythmic tractions of the tongue, as indicated by M. Laborde.

Bacteriology of Peri-uterine Suppurations.—M. Terrier made a report upon the work of MM. Hartmann and Moray, having reference to a series of microbiological examinations of the pus of different affections of the lower pelvis. These authors examined specimens of various forms of salpingitis—catarrhal, hydrosalpingitis, pyosalpinx, hematocele, tubal pregnancy, collections of peri-uterine suppurations, etc. Sometimes the pus was found to be sterile, and sometimes it contained microbes, gonococci, bacterium coli, pneumococci, etc. The temperature of the patient seemed to be in direct relation with the lesions of the annexæ, and especially with the microbic nature of the affection. Both M. Terrier and the authors conclude, as the result of these investigations, that the total ablation of the diseased annexæ should be always made, whatever certain German authors may say to the contrary. The drainage may be removed after forty-eight hours, when the lesion is sterile.

M. Quenu: I have made similar examintions in seven cases, and have obtained results analogous to those of M. Terrier and his associates. Since Jan. 1, 1894, I have operated by laparotomy in forty cases of pelvic suppuration, with only one death, which supervened under very dramatic circumstances. It was the case of a young woman of twenty-seven years, a widow, and an invalid for some time. I performed the laparotomy, under the belief that it was a case of tuberculosis of the annexæ. On the day of the operation, the temperature was 37°. The same the next day. On the 9th, at 8:30 A.M., all was well; temperature 37°. At 10 o'clock very violent attacks of suffocation began, becoming more and more aggravated; abdomen soft, no pain or tenderness. At noon disease culminated, with profuse expectoration, and palpitation of the heart. Temperature ran up to 38°, and increased to 39° in a few hours. She expired at 7 P.M. Examination of the lungs and the expectoration showed that it was simply an infection by the pneumococcus of Friedlander. A careful histological examination of the principal organs was made, and no trace of tuberculosis was discovered. On the contrary, at the Pasteur Institute, large oval cells were found in the lungs resembling hematozoa. In all cases, the presence of these pigmentary bodies is very curious, and merits attention.

M. Lucas Championniere: These researches have especially a theoretic interest, particularly as respects drainage after laparotomy. Whether there is pus in the abdomen or not, I do not drain, and up to the present time I have had very good results. In my opinion, drainage is entirely useless.

M. Terrier: I practice drainage, not when I find pus, but when there are many and solid adhesions. In these cases, I often wound the intestine, and if I drain, supposing that a stercoral fistula is formed by the opening of the wounded intestine in the lower pelvis, my patient is saved. In such cases, I do not dare to omit drainage. M. Segoud instanced the opinion of M. Terrier. In cases of difficult and laborious extirpation of annexæ, it is necessary to use drainage, if supra-pubic operation is performed.

M. Quenu: If drainage is not practiced when it is required to destroy solid adhesions, the denuded intestine bleeds, the blood escapes, and remains in the small pelvis. M. Quenu prefers to see it come away, thanks to the drain. J. A. C.

TRANSLATIONS, GLEANINGS, Etc.

RETROSPECTIVE THERAPEUTICS.

By Alfred K. Hills, M. D., Fellow of the Academy of Medicine, New York.

Lactic Acid as a Prophylactic in Gout.—Berenger-Feraud (*Journ. de Med.*), recommends the employment of lactic acid to prevent the gouty attack. To six hundred grains of the acid is added sufficient water to make a solution of twenty teaspoonsful. Each teaspoonful will thus contain thirty grains. Every morning a teaspoonful of the solution is added to two or three glasses of sweetened water, and drunk in the course of the day. At the end of twenty days the medication is suspended for ten or twelve days, and then resumed. The treatment should be continued for several years. The remedy is inoffensive, and does not interfere with the digestion or the nutrition.

Collodion for the Treatment of Incontinence of Urine in Childhood and Youth.—Dr. J. E. Poers, in *Mass. Med. Journal.* The mechanical treatment to which attention is called is the treatment by collodion. It is most easy of application, occupies scarcely a minute, and can be carried out at school, college, or elsewhere, in perfect privacy. All that is necessary is while the prepuce, slightly curved up, is held with the left hand, to smear over the little cup thus formed by the extremities of the prepuce with collodion, by means of a small camel's hair pencil or blunt end of a pen holder. Almost as fast as applied the collodion solidifies. In contracting, it draws closely together the edges of the prepuce, and thus the exit for the escaping urine is closed.

A boy of eleven years has after one lesson, been able to use the collodion, and has used it every night carefully and diligently, so anxious has he been to cure himself of what he considered a disgrace. A fortnight's use is sometimes sufficient for the cure. A relapse is easily dealt with. A solution of gutta percha in chloroform would seem at first sight to be equally applicable, but it is not. The solution of gutta percha is much longer in hardening, and it possesses no contractile powers. When the child desires to pass water, the little wedge or cap of collodion is easily removed with the finger nail. When I first used this collodion application, my expectation was that the bladder would act so forcibly against it as to cause sudden pain, and oblige the patient to jump at once out of bed and quickly remove the collodion, and that he would then repeat the application before returning to sleep. I was greatly disappointed. There was no pain, no awakening, but on rising in the morning the prepuce was found slightly distended with urine, and the collodion was removed without difficulty.

The Brand Method Unscientific.—Dr. W. H. Washburne, of Milwaukee, contributes an article to the January number of the *Western Medical Reporter*, in which he shows very clearly that the Brand method is unscientific. It is unscientific because it assumes that the elevated temperature is the chief cause of death. This the writer denies. In his own experience the average maximum temperature of his fatal cases has been lower than the average maximum temperature of his cases that ended in recovery. The author says that from 93 to 95 per cent. of cases in private practice should get well without any treatment whatever, hence the use of this method is narrowed to within very small limits. Statistics also show that the number of cases of relapse treated by the Brand method is much greater than the same number treated in the usual manner. At the last meeting of the American Medical Association the statement was made that the more the temperature of typhoid fever is interfered with, the greater is the liability to relapse.

Medical Treatment of Cancer.—Dr. Herbert Snow, of London, discusses the whole subject of the treatment of cancer, in a late number of the *Medical Press and Circular*. Speaking of the medical treatment alone, he says that the

golden rule to follow in all cases of cancer that cannot be cured by surgical eradication is to begin at the very earliest moment with the administration of opium or morphine in small, continued and steadily increased doses. The patient with a malignant tumor should thus become permanently subject to the morphine habit which is purposely induced. Dr. Snow says that the drug should be given with the avowed object of arresting and keeping in check the progress of the cancer. In such cases, the practice of withholding opium until compelled by pain to use it, is poor practice. While certain cancers, as the uterine cancers, are not checked by this morphine treatment, yet considerable prolongation of life is effected. In other cases, however, as in cancer of the breast, if the patient is well under the influence of the opium before ulceration has taken place, the organ passes into an atrophic and shriveled condition which causes no suffering, and which is compatible with many years of comfortable existence.

The External Use of Alcohol.—Temperance orators, says the *Medical Summary*, have yelled themselves hoarse for years proclaiming the deleterious effects of alcohol within the system. The consequence of this has led many to doubt whether the bad results do not so greatly preponderate as to make it wise to do away with its use altogether. But there can be no objection to its use externally applied, and in many cases it is a most effective application. For all bruises alcohol is known to be most excellent, preventing any great discoloration of the affected part, and relieving the pain to a greater extent than almost any pain-obtunder. It is almost a sure preventative of "black eye," says an exchange; when that organ has been struck, four or five thicknesses of linen, moistened with alcohol and bound on the part, being all that is necessary.

Numerous cases are on record where its use daily as a wash had cured chronic ulcers of the leg, inducing healthy granulations, this being the only medication employed. As an application to ulcers of the rectum, it has been advantageously employed, the parts being well washed and cleansed with warm soft water, and then a pad of raw cotton soaked with alcohol inserted—the burning sensation lasting only a short time, and not being very severe. As an injection in cases of vaginitis and leucorrhœa it exercises a very marked beneficial effect. In these cases it should be used in dilute form—say twenty to fifty per cent. in warm soft water. But for ulceration of any part of the vaginal tract, the sores should be swabbed once or twice daily with a pledget of cotton saturated with full-strength alcohol. It is also authoritively stated that incipient boils may be aborted by covering the spot with a pledget of raw cotton kept wet with alcohol. Pruritus is always relieved, and frequently entirely cured by the application of alcohol to the parts.

The Relief of Spasmodic Retention of Urine.—(*N. Y. Med. Journal.*)—Excessive irritability is one form of interference of the higher centres; the other form is spasmodic retention. Thus, when a man wishes to pass water, he is anxious, especially if some one else is standing by and waiting, as in a public urinal, to make water in a hurry; the desire to make water quickly prevents him from passing it at all. This form can frequently be relieved by some such plan as that adopted by Boerhaave. He lived before taps were so common as now, and he used to have a screen in his consulting room behind which was placed a tall footman. When he desired any of his patients to pass water, the footman, at a given signal from him, poured water from a water-bottle into a basin on the floor, so as to imitate the sound of a person passing water, and this at once had the desired effect. If, in the out-patients' department you want to get a specimen of water quickly, in order to examine it, the best thing you can do is to turn on a tap, and if that is not sufficient leave the patient to himself and tell him that there is no hurry whatever; as a rule, if there is more than two teaspoonfuls of water in the bladder, you are sure to get it by this plan. Sometimes also, when there is no water running, if the patient only thinks of the sound of running water, it will make the bladder act. The introduction into the urinals at railway stations of constantly running water has been of great service to many. Some passengers can now empty their bladder at a railway station who could not have done it before, although it does not occur to them that the constant running of water has anything to do with the evacuation of the bladder; it has, however, a great deal to do with it. Washing the hands with cold water is another help, as also the application of a cold wet sponge or hot water to the perineum: and making the patient sit down in a hot sitz-bath will frequently enable him to pass water into the bath when he could not do it otherwise.

The Treatment of Typhoid Fever.—Dr. Elmer Lee, of Chicago, says: (A half tablespoonful of hydrozone is added to each glass of water. It is the best and most simple remedy that can be given that is likely to be of benefit in helping to cure typhoid fever. Continued for a few days, it is then laid aside for a few days and glycozone substituted in its place, both as a relief to the patient and for the beneficial effect of the remedy itself. And so on in this way the two remedies are alternated, which is found by me to be the best arrangement for administering these valuable antiseptics. The preparation, glycozone, is chemically pure, redistilled glycerine in which ozone, or concentrated oxygen, has been incorporated, and can be taken with as much freedom and safety as pure glycerine. The glycozine may be taken in doses of half a tablespoonful to a glass of water as often as water is taken during the day.

Conium in the Treatment of Spasmodic Torticollis.—Dr. Wharton Sinkler (*Med. and Surg. Reporter*, January 15, 1894,) records two cases of spasmodic wry-neck entirely relieved by the administration of conium. He recommends the fluid extract of the seeds, and usually begins with fifteen or twenty drops. Besides having seen beneficial results in these cases from such large doses of the remedy, the writer states that in several instances of painless muscular spasm in other positions, he has met with similar beneficial results from conium.

OBITUARY.

PROFESSOR JOSEPH HYRTL, the eminent anatomist, and the last survivor of the famous group of scientific men who laid the foundations of the renowned Medical School of Vienna, has just died at the age of eighty-four. "As a teacher," says the *London Telegraph*, "Hyrtl was almost unsurpassed. He was so gifted with eloquence that his lecture-room could only with difficulty accommodate the crowds of students of all nationalities who flocked to hear him. As an original investigator and scientist, Professor Hyrtl attracted the warm admiration of his contemporaries. He was the first German writer who published an independent treatise on topographical anatomy. His celebrated handbook on that subject appeared in 1847. With the publication of his 'Lehrbuch der Anatomie des Menschen,' of which the twentieth edition has appeared this year, a new era was opened in anatomical text-books. His books have been translated into all European tongues. Professor Hyrtl's celebrity as a linguist is well known. He had so completely mastered the tongue of Cicero that it became in his mouth a living language, and he was always prepared to give the fullest explanations in elegant Latin to all inquirers. His knowledge of the Greek classics also was amazing, and in 1861 he delivered before the Paris Academy a much-admired extemporaneous lecture in the French language. In his seventieth year he took up the study of Hebrew and Arabic with such success that three years later he was able to produce his remarkable work upon the anatomical ideas of the Jewish and Moorish physicians. Hyrtl was distinguished for his benevolence, and, considering the modest amount of his income, his benefactions were astonishing. He supported poor students and benevolent institutions in a generous fashion. He caused two orphan institutions to be erected in Modling, near Vienna, to accommodate 200 orphans, and thus bestowed on Lower Austria a gift that cost him £30,000."

MISCELLANY.

—Consumption is most common in Belgium, Scotland and Canada.

—In the month of June, 1894, one hundred persons were struck by lightning.

—The eruption of scarlet fever in the black race is a royal purple in hue.

—To detach a fish-bone from the throat, swallow a raw egg as quickly as it can be obtained.

—Chest mobility is one of the best criterions of endurance and fitness for continued exertion.

—Accidents in football are twenty times as frequent as in riding or in gymnastics.

—The death of a lady in Berlin is noted, at the age of sixty-eight, of puerperal fever.

—Prof. Helmholtz had a slight attack of apoplexy July 12th, followed by left-sided hemiplegia.

—Dr. John Williams, the physician of the Duchess of York in her recent confinement, has been created a baron.

—Visitor: "Do you regret the past?" Convicted counterfeiter: "Oh, no; it's what didn't pass that I feel bad about."

—Prof. E. T. Darby, of Philadelphia, advocates the use of tin in filling teeth. He pronounces it equal to gold for this purpose.

—It is reported that a Frenchman has invented an electric mosquito bar which electrocutes insects that come in contact with it.

—The ribbon of the Legion of Honor has been awarded to Mme. Bozelot, of Paris, who has devoted her life to the redemption of women.

—The next annual meeting of the American Electro-Therapeutic Association will be held at the Academy of Medicine, Sept. 25–27.

—The Arkansas State Board of Health has been given power to revoke the license of any physician who is guilty of habitual drunkenness.

—The true physician longs for the time when he shall find in every fellow practitioner a brother, a counsellor, a scholar, a gentleman.—*W. I. Bell.*

—The Colorado State Medical Society has offered a prize of $100 for the best essay on "Tuberculosis from Microscopic Examination of the Blood."

—Mrs. Mary Hemenway left the interest on her estate, worth $15,000,000, for a period of fifteen years, to be devoted to scientific and educational work in Boston and vicinity.

—Osler says that pneumonia is a self-limited disease, and runs its course uninfluenced in any way by medicine; that it can neither be aborted nor cut short by any known means at our command.

—Dr. Joseph Price says: "We have an army of women in America dying from the opium habit—larger than our standing army. The profession is wholly responsible for the loose and indiscriminate use of the drug."

—The Imperial Ottoman government has, we are informed, sent three young Turkish women to France to study medicine. One of them has been sent to Montpelier, another to Nancy, and the third to Lille.

—A Miss Rafferty, of Manchester Township, N. J., is suing Mr. Ives, her former lover, for damages, caused, she avers, by his kissing her until the gold filling in her front teeth fell out. She wants him to heal the aching void.

—A hospital for lepers, with a laboratory for the study of leprosy, has been established at Rio de Janeiro. Dr. Wolf Havelburg, a German physician, who for the last twelve years has practised in Brazil, has been appointed director.

—Dr. Spencer Cox says that glonoine is useful in removing the craving for drink in alcoholic patients, and that one drop of a one per cent. solution of it, injected hypodermically, will immediately check a fit of true epilepsy.

—Oliver Wendell Holmes replies to the charge that in all his stories the villains are drawn from the clerical and legal professions, that the medical profession is so full of good people that even its own story writers have to go outside of it to find their villains.

—A foreign journal says that the development of boils is due to dryness of the skin, and if the region attacked be persistently rubbed with some fatty substance, as cream or lanolin, the boils may be prevented. Lee's Liquid Soap is excellent for this purpose.

—Dr. H. W. Pierson says: "The symptomatologist pure and simple is a palliator. The physician who relies upon his materia medica alone must always remain among the class who feel that their mission has been performed if they can but temporarily relieve the suffering of their patients."

—The will of William F. Sayles, of Pawtucket, R. I., includes bequests of $16,000 each to the Rhode Island Hospital and to the Rhode Island Homœopathic Hospital. These donations are to take the form of endowments of free beds, which will in perpetuity bear the names of the members of his immediate family.

—The Medical Society of the State of New York offers a prize of one hundred dollars for the best original essay on any medical or surgical subject. Competitors must reside in the State of New York, and be members of a county medical society. Essays are to be sent to the chairman prior to January 1, 1895.

—Dr. Schupmann, of Geseke, Westphalia, probably the oldest medical man in Germany, is dead, at the age of ninety-three. During the first fifty years he was in practice it is stated that he never left his district for a single night, and he did not finally retire from the charge of the local infirmaries until he was past ninety years of age.

—Dr. F. Byron Robinson, in the *Journal of the American Association* of February 10th, makes an earnest plea for the administration of water after laparotomies. He says the total abstinence from fluids enjoined by Mr. Tait is entirely wrong (unless the patient is vomiting), and that a little very hot water now and then does no harm.

—The ridiculous lengths to which a fear of contagion will lead one is illustrated in the city of Baku on the Caspian Sea, where an anti-shaking-hands society has been organized to prevent the exchange of bacilli by contact. Members pay six roubles a year, and wear a button as a sign of membership. They are fined three roubles for each handshake.

—At a recent meeting in Exeter Hall, London, the appointment of a minister of physical education was suggested and seriously discussed. One of the speakers, the Marquis of Caermarthen, M. P., said that a gymnasium should receive substantial aid from the government, "the proper physical culture of the people being a matter of the greatest national importance."

—When a glass stopper sticks in the bottle, pass a strip of woolen cloth round the neck of the vessel and seesaw it backward and forward. This friction heats and causes the neck to expand, so that the stopper becomes loose. On this principle of expansion by heat, a tight screw may be withdrawn from a metal socket, by surrounding the socket with a cloth dipped in boiling water.